

# The Mining Journal

## RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 615.—VOL. XVII.

London, Saturday, June 5, 1847.

[PRICE 6D.]

**Stannaries of Cornwall**—In the Vice-Warden's Court. PURSUANT to a DECREE in the VICE-WARDEN'S COURT, made in the cause of "Hui v. Vigurs," the creditors in respect of the ROYAL POLBERRROW MINES, otherwise the ST. AGNES CONSOLIDATED MINES, in the parish of St. Agnes, within the said Stannaries, are, on or before the 11th day of June next, to come in and PROVE THEIR DEBTS before the Registrar of the said Court, at his office in Truro; or, in default thereof, they will be EXCLUDED THE SAID DECREE. Dated, Registrar's Office, Truro, the 29th day of May, 1847.

VALUABLE MINE SETT AND MATERIALS TO BE SOLD, IN CONSEQUENCE OF SOME PECUNIARY DIFFICULTIES.

**MR. MURRAY** is instructed to OFFER, BY PUBLIC COMPETITION, on Tuesday, the 8th day of June, 1847, a valuable STEAM-ENGINE, of 50 inches cylinder, erected on the most approved principle, by Messrs. Hocking and Loomis, 1845, since then and now drawing the water from the mine; together with the PUMPS, RODS, LADDERS, &c., necessary for carrying on the operation in the engine-shaft, and also, an excellent WATER-WHEEL, 50 feet in diameter, 2 feet in. broad, with thin pump rods, ladders, pulleys, stands, and other requisites, for further prosecuting the adventure in the eastern shaft, the same being now fixed, and in a proper position for providing the lode wrought on it, at a much greater depth.

Also, will BE SOLD, in the same lot, the remainder of the SETT FOR MINING, of 21 years, of which above 16 years are unexpired, of those extensive properties, situated in the parishes of St. Cleer and St. Ives, in the county of Cornwall, the same being known by the name of WHEAL GILL, being in the immediate vicinity of, and lying between, the valuable and productive mines of South and West Caradon and Wheal Trelawney, on a part of which seat one of the lodes has been wrought to some extent.

The present shareholders have thought it advisable to offer the above for sale in the position in which it is now fixed, as the highest opinion of its future prospects is generally held. The mine and materials now offered may be viewed & application at the mine, any day in the week preceding the day of sale, when every facility for examining the lodes and underground working will be given.

Refreshments will be provided at the counting-house at One o'clock in the afternoon, and the sale to commence precisely at Two.

Any further particulars may be obtained of Mr. Robert Taylor, the purser; or Mr. William Murray, auctioneer.

Dated Castle Villa Auction and Mining Offices, Liskeard, May 21, 1847.

PEREMPTORY SALE OF 16½ SHARES IN MINES.

**MR. CLYMA** has received instructions to SUBMIT TO SALE, BY PUBLIC AUCTION, at the Royal Hotel, in the borough of TRURO, on Wednesday, the 16th day of June inst., at Three o'clock in the afternoon, the undermentioned SHARES in the following MINES—viz.:

2 Shares in Redruth Consols, in the parish of	Redruth
1 " " Wheel Bucketts,	ditto
2 " " Ting-Tang Consols,	Gwennap
11 " " Grambler and St. Aubyn,	ditto
8 " " West Grambler,	ditto
1 " " Boscar,	ditto
1 " " St. Michael Penkivel,	ditto
1 " " Wheal Henry,	ditto
24 " " West Wheal Virgin,	ditto
1 " " Callestock,	ditto
3 " " Great Callestock Moors,	ditto
1 " " Budnick Consols,	ditto
32 " " Wheal Prudence,	ditto
3 " " Wheal Friendly,	ditto
20 " " West Wheal Rock,	ditto
7 " " Goonvras,	ditto
5 " " West Town,	ditto
2 " " Wheal Prussia,	ditto
6 " " West Tolquis & Trelowith,	ditto
6 " " Bussullian,	Creed
20 " " Wheal Lemon,	St. Columb
1 " " Wheal Rialton,	ditto
1 " " Trewoe,	Cubert
4 " " Tredale,	Ladock
1 " " Wheal Mary,	Lanivet
1 " " Remegga,	Rosche

The auctioneer, in inviting the attention of the public to the above shares, would beg to state, that several of the before-mentioned mines are situated contiguous to some of the most profitable mines in the country—thus giving to capitalists desirous of speculating an opportunity that rarely occurs.

Further particulars may be known on application to the auctioneer, No. 3, St. Nicholas-street, Truro; or to Mr. H. S. Stokes, solicitor, Truro.

True, June 2, 1847.

F FARMS AND COLLIERY AT TYDDYN AND ARGOED, NEAR MOLD, FLINTSHIRE, NORTH WALES.

BY MESSRS. THOMAS WINSTANLEY AND SONS,

On Tuesday, the 29th June next, at Two o'clock in the afternoon, at the Black Lion Hotel, at Mold, in one or more lots, by order of the trustees of the late Mrs. Hobson's estates,

TWO FARMS, in the townships of BISTREE and ARGOED—viz., TYDDYN—in the occupation of Mr. J. Catherall; and BRONWHLFA, in the occupation of Mrs. Ann Ward. And also EIGHT COTTAGES, upon the above farms.

The farms contain 277 acres of excellent land, including 33 acres of thriving woods and plantations, and 54 acres of fine old meadow land, of which more than half is artificially irrigated from the River Alun, producing some of the largest crops of grass in the country. The farm-houses and farm-buildings are commodious and convenient.

TYDDYN HOUSE is beautifully placed on an eminence, commanding extensive views of Moel Vana and the surrounding country, and is capable of being made, at a moderate expense, a very desirable residence for a gentleman.

The COLLIERY has been recently opened—operations have been hitherto confined almost exclusively to the proving of the seams of coal: they consist of the Main Coal, which is 8 feet thick, and the Hollin Coal, which is 7 feet thick, and are already proved to extend—or first-rate quality—for a considerable distance, with every prospect of their uninterrupted continuance across the broadest part of the estate, parallel with the turnpike-road—the ends of all the drivings being fine coal—and the mine is now ready for extensive operation.

A new work has been constructed upon a part of the estate, where there is excellent views for making draining tiles, for the use of the estate and for sale.

The turnpike-road from Mold to Chester runs through the property for a distance of three-quarters of a mile; and a branch of the Chester and Holyhead Railway is in course of construction—crossing the lower end of the estate, near the turnpike-road—affording convenient carriage from the colliery, and connecting the district with Birkenhead, Chester, and the south.

The property is distant 1 mile from Mold, 6 from Flint, 11 from Chester, 11 from Wrexham, and 19 from Liverpool.

The property is freehold of inheritance, and is free from all rents and services.

Particulars may be had on application to Mr. Richard Isaac, Tyddyn Colliery, Mold; or to Mr. William Wood, solicitor, 1, Harrington-street, Liverpool.

FOR SALE, at TRETOIL MINE, near BODMIN, in the county of Cornwall, a 66-inch cylinder STEAM PUMPING-ENGINE, complete, with TWO BOILERS, of about 20 tons; 2½-inch cylinder STEAM-ENGINE (single), without boiler; 66 fathoms of 17-inch pumps, nearly new; 21 fathoms of 12, 14, 16, and 9-inch pumps, with suitable plungers, cases, stuffing-boxes, windshores, H and door-pieces, 2 capstans and shears, capstan-ropes, balance-bars, main-rods, strapping-plates, horse-whims, whim-ropes, railroad iron, bolts, brasses, &c., with numerous articles, well worthy the attention of mine adventurers and agents.

Application to be made to Mr. George Geach, Bodmin; to Capt. Henry Williams, on the mine; or to Mr. Henry Thomas, Mining Offices, 8, George-yard, Lombard-street, London.—Dated June 4, 1847.

ON SALE—COLLIERIES, near BISHOP AUCKLAND, in the county of DURHAM.—TO BE SOLD BY PRIVATE CONTRACT, in UNEXPIRED TERM, held by the present lessees, in the GORDON and EVENWOOD COLLIERIES. The above collieries are now in work, and are so situated as to command a considerable stretch of the York and Newcastle Railway, and the new railways leading to the south and west; for all of which Acts are obtained. By the first, great facilities will be obtained for shipments on the Tyne and Wear. For further particulars apply to Mr. Brogan, Stockton-on-Tees.

TO LET, A VALUABLE COLLIERY, and a FIELD OF BLACK AND CLAY-BAND IRONSTONE, on the Estate of PRESTONGRANGE, near the village of Prestongrange, situated about eight miles from Edinburgh, and intersected by the line of the North British Railway.

The COAL and IRONSTONE are in the same field, and a shaft has been sunk, which reaches the ironstone at a depth of 56 fathoms from the surface, and the coal at a depth of 38 fathoms.

The BLACK-BAND IRONSTONE is about 20 inches thick, with 4 inches of Parrot Coal, and 8 inches of Clay-band Ironstone—forming in all with some shale interposed, a seam of about 4 feet thick. According to an analysis, by Professor Johnston, the black-band contains about 27 to 32 per cent of metallic iron, and the clay-band about 36 per cent. On application, specimens of the stone, raw or calcined, will be sent to inquirers.

The seam of coal is about 4 feet thick, and about 50 tons of coal are now raised daily. There are rails laid from the mouth of the shaft to a siding on the North British Railway, and there is a safe and commodious shipping harbour belonging to the proprietor, at the distance of three-quarters of a mile from the pit.

Application may be made to the proprietor, Sir George Grant Sutte, Prestongrange, and the works are both within a mile of the Trenton Station on the North British Railway.

### MINING ADVENTURERS' SUBSCRIPTION ROOM:

ORIGINAL REGISTRY OFFICE FOR THE SALE AND PURCHASE OF MINING SHARES.

CROSSMAN, SOMMERS, AND CO., AGENTS,

28, THREADNEEDLE-STREET, LONDON.

### SHARES FOR DISPOSAL

Birch Tor and Vitifer Tin Mine  
West Wheal Providence  
Great Wheal Frederick Tin Mine  
Devon and Courtney Consols  
North Eastern Mining Co. of Ireland  
Exmoor Wheal Eliza  
South Wheal Maria  
Wheal Susan  
Holm bush  
Wheal Rose Consols  
Wheal Beam Tin Mine  
Bedford United Mines  
Alfred Consols

Dartmoor Consols  
Wheal Mary and Elizabeth  
Coombe Mine  
Wheal Rose  
Pennant Mining Company  
Abergwesyn Silver Mine  
Wheal Anderton  
New East Crowndale  
East Wheal Rough Tor  
Grimbley and St. Aubyn  
North Wheal Robert  
Great Wheal Rough Tor  
&c. &c. &c.

Also, A FEW FORFEITED SHARES IN SOUTH FRIENDSHIP WHEAL ANN, by order of the parson.

**GEOGRAPHICAL TIN MINES**, divided into 2048 shares, and worked ON THE COST-BOOK SYSTEM.

The necessary arrangements having been made for carrying out the operations of the company, all future communications are requested to be addressed to the offices of the company, 21, THROGMORTON-STREET, LONDON, where the specimens and plans, with the correspondence, may be seen.

**LANYMOWDDWY MINING COMPANY, DINAS MOULDWY, COUNTY MERIONETH.**

2400 parts, or shares, of £2 per part, or share.—To be on the COST-BOOK PRINCIPLE.

Prospectuses, maps, and all particulars, may be obtained at the offices of the company, No. 4, Salisbury-street, Strand; Messrs. Pocock and Marsden, solicitors, No. 10, Norfolk-street, Strand; James Lane, mining share agent, 75, Old Broad-street; the Mining Adventurers' Subscription Room, 28, Threadneedle-street; Messrs. Oliver and Co., stock and share brokers, Coggishall, Essex; and Henry Beaumont, Esq., stock and share broker, Exeter.—Prospectuses can also be had at the office of the *Mining Journal*, 26, Fleet-street, London.

**MULFRA-HILL AND BOSULVAL TIN MINE.—FOR SALE**, BY PRIVATE CONTRACT, the ABOVE extensive MINE and MINE SETTS, with the WATER-ENGINE, and other MATERIALS necessary for working.

The mine adjoins the celebrated Tin Mine Ding-Dong, and, with a small outlay, may become very productive. Application to be made to Mr. Henry Thomas, of No. 8, George-yard, Lombard-street, London; or to Capt. Isaac Penberthy, of the Providence Mines, St. Ives. May 28, 1847.

**NORTH WALES MINING COMPANY, COUNTY OF MERIONETH.**

Divided into 12,500 shares, limited to £10 each, and carried out upon the Cost-book System, with a deposit of £2 10s. per share.

OFFICES, No. 2, NEW BROAD-STREET, LONDON.

Applications for shares and prospectuses to be made at the office.

W. T. GRIFFITHS, Purser.

**WHEAL BEAM TIN MINE, DEVON.—CONDUCTED ON THE COST-BOOK SYSTEM.**

This promising mine (now in 118 shares), to be divided into 1770 shares, at £1 per share, extends over about 700 acres, and joins the western end of the well-known United Ashburton Consols Mine. It is in full course of work, and making regular returns of tin—upwards of 5000 cwt. of which have been shipped. The present proprietors, being only four in number, are anxious to work the mine in a more effectual manner, and upon a more extended scale, having hitherto confined the operations to only one lode; they, consequently, offer one-half of their interest to the public as above.

For prospectuses and shares apply to Crossman, Sommers, and Co., agents, Mining Adventurers' Subscription Room, and Sole Agents Office for the Sale and Purchase of Mining Shares, 28, Threadneedle-street, London.

**TO MINE AGENTS, MINE SURVEYORS, &c.—W. WILTON,**

MATHEMATICAL, PHILOSOPHICAL, and OPTICAL INSTRUMENT MAKER, ST. DAY, CORNWALL.

Begs to call the attention of MINE AGENTS and SURVEYORS to his MINER'S THEODOLITE, and other IMPROVED INSTRUMENTS, adapted to MINE SURVEYING;

and to assure them, that, from many years constant application of his energies in one of the most active mining districts to this particular branch of mathematical instrument making, he flatters himself is able to furnish instruments, equal in point of accuracy and workmanship, and superior as regards adaptation to the wants of the miner, to those supplied by almost any other house.

\* \* \* A descriptive price list sent free per post, on application.

**ASSAYING AND ANALYSIS.—Mr. MITCHELL** begs to inform the MANAGERS, &c., of MINES, SMELTING-WORKS, and MANUFACTORIES, that he still continues to CONDUCT ASSAYS and ANALYSES of all PRODUCTS, metallurgical and manufacturing, at his LABORATORY,

23, HAWLEY-ROAD, KENTISH-TOWN, LONDON,

to which address communications are to be forwarded.—Instruction in all branches of assaying and analysis as usual.

**BRUNTON'S PATENT ORE-DRESSING FRAME.—**

These FRAMES, for DRESSING TIN, COPPER, and OTHER MINERALS, having been in use, and given satisfaction, on several mines, during the last two years, THE PATEENTEE begs to call the attention of all Adventurers and Mine Agents to the great advantages, both as regards economy of labour and the great increase of mineral obtained by their adoption. The following gentleman can certify as to their utility:—Thos. Bolitho and Sons; F. N. Johnson, Esq.; Capt. Joe Vivian, Cook's Kitchen Mine; Capt. R. Kernick, St. Ives Consols; Capt. R. Edwards, Wheal Franco; Capt. W. Teague, Wheal Gray. Capt. James Miners, and Capt. Matthew Rogers, Carn Brea Mines.

**THE PATENT SAFETY FUSE, FOR BLASTING ROCKS IN MINES, QUARRIES, AND FOR SUBMARINE OPERATIONS.**

—This article affords the SAFEST, CHEAPEST, and most EXPEDIENT MODE of effecting this very hazardous operation. From many testimonies to its usefulness with which the manufacturers have been favoured from every part of the kingdom, they select the following letter, recently received from John Taylor, Esq., F.R.S., &c.:—“I am very glad to hear that my recommendations have been of any service to you; they have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name as evidence of this.”

Manufactured and sold by the Patentees, BICKFORD, SMITH, and DAVEY, Camborne, Cornwall.

**TO BUILDERS, IRONMASTERS, AND OTHERS.—The**

directors of the COMMERCIAL GAS-LIGHT COMPANY will meet at the works, Ben Jonson's-fields, Stepney, on Wednesday, the 22d day of this present month, to RECEIVE TENDERS for the ERECTION of COAL STORES, with IRON ROOFS, of an area of 1900 feet, with LAY-BYE adjoining.

Plans and specification can be seen, and particulars obtained, on application to Mr. J. Morcom, engineer, at the works, between the hours of Ten and Two.

Tenders, sealed and endorsed, “Tenders for Coal Stores, &c.,” to be delivered to the secretary, by Twelve o'clock on the above-mentioned day.—The directors do not bind themselves to accept the lowest tender.

By order of the board.

G. JAQUES, Secretary.

**TO ENGINEERS, RAILWAY CONTRACTORS, MINING AGENTS, IRONMASTERS, AND OTHERS REQUIRING FINE GREASE FOR MACHINERY AND AXLES** of every description.—JOSEPH PERCIVAL'S IMPROVED ANTI-FRICTION GREASE is—after trials on machinery and axles of every kind where constant friction is kept up—admitted to be the most useful, economical, and best preserving of the kind ever offered to the public.

References to scientific and practical men can be given, and testimonials shown of its great excellence.—Samples forwarded on application at the manufactory, Green-street, Wellington-street, Blackfriars-road, London.

**STEAM COAL—WITHOUT SMOKE**, as per experiments made at her Majesty's Dockyard, Woolwich.

CAMERON'S COALBROOK STEAM COAL, AND SWANSEA AND LOUGHOR RAILWAY COMPANY.—(Completely Registered and Incorporated.)

OFFICES—2, MOORGATE-STREET, LONDON.

The directors are now prepared to supply steamship companies, manufacturers, shippers, and others, with the company's steam coal, either at the company's wharf at Swansea, or in London. A statement, showing by comparative trial the superiority of this coal for steam purposes over every other, and a scale of prices, may be had on application at the company's offices here, or at their wharf at Swansea.—March 18, 1847.

**PATENT GALVANISED IRON AND WIRE ROPE WORKS, MILLWALL, POPLAR.**

ANDREW SMITH begs to inform the Mining, Railway, and Shipping interests, that he has obtained a PATENT for an IMPROVED METHOD

## IMPROVED LIFTING JACKS.

MANUFACTURED BY

GALLOWAYS AND CO.,  
KNOTT MILL,  
MANCHESTER.

The attention of parties who employ

## Lifting Jacks,

is respectfully requested to the superiority of those annexed, over those hitherto in use.

## IMPORTANT TO RAILWAY COMPANIES.

**PATENT KAMPTULICON COMPANY, 18, CORNHILL.**  
This company having completed their new factory, are prepared to supply railway managers and contractors with an elastic material (perfectly non-absorbent) to place between the rails and sleepers, and between the frames and bodies of carriages, to prevent jarring, and, consequently, wear and tear. The elastic planking is strongly recommended to be used for the backs and sides of carriages, to prevent splinters when accidents occur. By order of the board, P. G. GREVILLE, Secretary.

## PROJECTED RAILWAYS.

**PATENT METALLIC SAND, OR ENGLISH POZZOLANO.**  
GREAT REDUCTION IN PRICE.

Extensively used in mortar and concrete at the great tunnels on the London and Birmingham Railway, in the foundations of the new Houses of Parliament, sea walls on the South Devon Railway, Clifton Reservoirs and other works of importance. From its chemical qualities, the metallic sand forms, in admixture with lime and common sand, a cement, mortar, or concrete, of mighty hardness, and almost entire incomparability; and, from its adhesive and impervious qualities, it completely and for ever excludes water. The more it is exposed to the atmosphere, and to wet and damp, the harder and more durable it becomes.

As an external stucco, the metallic sand cement is unaffected by frost or wet; it appears it resembles the best Portland stone—requires, therefore, neither colour nor paint, and is entirely free from vegetative cracks and blisters, to which Roman cement is liable. Further information will be given, and specimens shown, on application to

Mr. C. R. DYER, 4, New Broad-street, London.

## ANALYSIS OF THE PATENT METALLIC SAND.

Silica	49	Lime	6
Oxide of iron	32	Magnesia	2
Alumina	8	Zinc	3

**LEMONNIER, HAIR-WORKER to the Queen,** and Member of the Academie de l'Industrie, and who obtained a Silver and Platina Medal at the Exhibition, has just INVENTED several NEW DESIGNS, as Palm Trees, Wreaths, Knots, and Cyphers, which he executes with hair in its natural state, without using gum or other cement. A variety of trees executed by a mechanical process.

No. 13, RUE DU COQ SAINT HONORE PARIS.

## NO BREWING UTENSILS REQUIRED.

**PATENT CONCENTRATED MALT AND HOP EXTRACT**  
enables PRIVATE INDIVIDUALS to MAKE

## FINE HOME-BREWED ALE,

WITHOUT EMPLOYING ANY BREWING UTENSILS.—It has only to be dissolved in hot-water and fermented.—Sold, in jars, for medicinal and other purposes, at 1s. and 1s. 6d.; and in bottles for brewing 9 to 18 gallons and upwards of ale, at 6s. and 7s. 6d. each, by the

BRITISH NATIONAL MALT EXTRACT COMPANY.

7, NICHOLAS-LANE, LOMBARD-STREET; Petty, Wood, and Co., 33, Threadneedle-street; Wix and Sons, 22, Leadenhall-street; Batty and Co., 15, Finsbury-pavement; De Castro and Peach, 65, Piccadilly; Hockin and Co., 38, Duke-street, Manchester-square; and all men and grocers generally.

Also, just published, and may be had gratis.

**NATIONAL BREWING: A GUIDE to the USE of CONCENTRATED MALT AND HOP EXTRACT, for BREWING and WINE MAKING;** to which is added, MEDICAL OPINIONS relative to the virtues of malt and hops.

**ON NERVOUS DEBILITY & GENERATIVE DISEASES.**  
Just published, the Thirtieth Thousand, an improved edition, revised and corrected, 120 pages, price 2s., in a sealed envelope, or forwarded, post-paid, to any address, secure from observation, for 2s. 6d., in postage stamp, illustrated with numerous anatomical coloured engravings. "MANHOOD: the Causes of its Premature Decline, with Plain Directions for its Perfect Restoration." A medical essay on those diseases of the generative organs, emanating from solitary and sedentary habits, indiscriminate excesses, the effects of climate, and infection, &c., addressed to the sufferer in Youth, Manhood, and Old Age; with practical remarks on marriage—the treatment and cure of nervous and mental debility, impotency, syphilis, and other urino-genital diseases, by which even the most shattered constitution may be restored, and reach the full period of life allotted to man. The whole illustrated with numerous anatomical engravings on steel, in colour, explaining the various functions, secretions, and structures of the reproductive organs in health and disease; with instructions for private correspondence, cases, &c.

By J. L. CURTIS and Co., Consulting Surgeons, 7, Frit-street, Soho-square, London.

**REVIEWS OF THE WORK.**—"Manhood: a medical work." To the gay and thoughtless we trust this little work will serve as a beacon to warn them of the danger attendant upon the too ready indulgence of their passions, whilst to some it may serve as a monitor in the hour of temptation, and to the afflicted as a safe guide to health."—*Chronicle.* "We see no hesitation in saying, that there is no member of society by whom the book will not be found useful—whether such person hold the relation of a parent, a preceptor, or a clergyman."—*Sun, Evening Paper.* "Curtis on Manhood should be in the hands of youth and old age. It is a medical publication, ably written, and develops the treatment of a class of painful maladies which has too long been the prey of the illiterate and the designing."—*United Service Gazette.*

Published by the authors, and may be had at their residence; sold also by Strange, 21, Paternoster-row; Hammay, 63, Oxford-street; Mann, 39, Cornhill, London; A. Heywood, Oldham-street, Manchester; Philip, South Castle-street, Liverpool; Campbells, 146, Argyle-street, Glasgow; Robinson, 11, Green-side-street, Edinburgh; and, in a sealed envelope, by all booksellers.—Messrs. Curtis and Co. are to be consulted daily at their residence, No. 7, Frit-street, Soho-square, London; and patients can have this work privately forwarded them, by initial or otherwise, to any part of the United Kingdom, direct from the authors' residence; or from any of the above agents, on remitting 2s. 6d. in postage stamp.

## ON THE SECRET INFIRMITIES OF YOUTH AND MATURITY.

With 25 coloured engravings.  
Just publish'd (in a sealed envelope), price 2s. 6d.; or post-paid to any address, 3s. 6d. in Post-office order or stamp.

**SELF-PRESERVATION: A Medical Treatise, on Marriage, and on those Secret Infirmities and Disorders of Youth and Maturity that are usually acquired at an early period of life, which tend to destroy physical and mental energy, ardour, passion, and all the attributes of manhood.** Illustrated with twenty-five coloured engravings, on the anatomy, physiology, and diseases of the urinary and reproductive organs, explaining their various structures, uses, and functions, and showing the injuries that are produced in them by solitary habits, excesses, and infection. With practical observations on the treatment of nervous debility, local and constitutional weakness, syphilis, scirrhea, and other diseases of the urethra. By SAMUEL LA'MERT, consulting surgeon, 9, Bedford-street, Bedford-square, London, Matriculated Member of the University of Edinburgh. Honorary Member of the London Hospital Medical Society, Licentiate of Apothecaries' Hall, London, &c.

**REVIEWS OF THE WORK.**—"Manhood: a medical work." To the gay and thoughtless we trust this little work will serve as a beacon to warn them of the danger attendant upon the too ready indulgence of their passions, whilst to some it may serve as a monitor in the hour of temptation, and to the afflicted as a safe guide to health."—*Chronicle.* "We see no hesitation in saying, that there is no member of society by whom the book will not be found useful—whether such person hold the relation of a parent, a preceptor, or a clergyman."—*Sun, Evening Paper.* "Curtis on Manhood should be in the hands of youth and old age. It is a medical publication, ably written, and develops the treatment of a class of painful maladies which has too long been the prey of the illiterate and the designing."—*United Service Gazette.*

The author of this singular and talented work is a legally qualified medical man, who has evidently had considerable experience in the treatment of the various disorders, arising from the follies and faults of early indiscretion. The engravings are an invaluable addition, by demonstrating the consequences of excesses, which must act as a salutary warning to youth and maturity, and by its perusal, many questions may be satisfactorily replied to, that admit of no appeal, even to the most confidential friend."—*Era.*

"Unquestionably this is a most extraordinary and skilful work, and ought to be extensively circulated; for it is quite evident that there are peculiar habits acquired at public schools and private seminaries, which are totally unknown and concealed from the conductors of these establishments, and which cannot be too strongly reprobated and condemned. The engravings that accompany the work are clear and explanatory; and being written by a duly qualified medical practitioner, will, doubtless, be the means of saving many a youth, as well as those of matured age, from the various evil consequences resulting from early indiscretions."—*Magna.*

Published by the author; and may be had from Kent and Richards, 51 and 52, Paternoster-row; Hammay, 63, Oxford-street; Storie, 23, Tichborne-street, Quadrant; Gordon, 146, Leadenhall-street; London; Newton, 16, Church-street, Liverpool; and by all booksellers.—At home for consultation daily, from nine till two, and from five till eight; and all letters, immediately replied to, if containing the fee of £1. advice, &c. The work may be had direct from the author's residence, and will be forwarded, free by post, to any address for 3s. 6d. in postage stamp.—9, Bedford-street, Bedford-square.

The Nineteenth Edition, price 2s. 6d.; free by post, 3s. 6d.

**THE SILENT FRIEND: a medical work, on the concealed causes of constitutional or acquired debility, loss of muscular energy, and derangement of the generative system, nervous debility, constitutional weakness, excessive indulgence, &c.; with Observations on Marriage, &c.** By R. and L. PERRY and Co., surgeons, London. Published by the author, and sold at their residence; also by Strange, 21, Paternoster-row; Hammay, 63, Oxford-street; Noble, 109, Chancery-lane, Gordon, 146, Leadenhall-street; Parcels, Compson-street, Soho, London.

Part I. of this work is addressed to those who are prevented from forming a mutual alliance, and will be found an available introduction to the means of perfect and secret restoration to manhood.—Part II. treats upon those forms of disease, either in their primary or secondary states, arising from infection—showing how numbers neglect to obtain competent medical aid, entail upon themselves years of misery and suffering.

The CORDIAL BALM of SYRIACUM is a stimulant and renovator in all cases of constitutional or acquired debility; by its use the whole system becomes restored to a healthy state of organisation. Sold in bottles, price 1s. and 3s.

**THE CONCENTRATED DETERGENT ESSENCE.** An anti-syphilitic remedy for washing out and purifying the blood from venereal contamination, scurvy, blotsches, on the head, face, and body, ulcerations, and those painful affections arising from improper treatment, or the effects of mercury, or secondary symptoms. Price 1s. and 3s. per bottle; also 2s. cases.

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## TRANSACTIONS OF SCIENTIFIC BODIES.

## MEETINGS DURING THE ENSUING WEEK.

Society.	Address.	Day.	Hour.
Asian	14, Granville-street	Saturday	2 P.M.
Western Scientific Institut.	Leicester-square	Monday	6 P.M.
Entomological	17, Old Broad-street	Monday	8 P.M.
Pathological	Regent-st., Waterloo-pl.	Monday	8 P.M.
Medical and Chirurgical	83, Parsons-street	Tuesday	8 P.M.
Civil Engineers	25, Great George-street	Tuesday	8 P.M.
Zoological	11, Hanover-square	Tuesday	8 P.M.
Syro-Egyptian	71, Mortimer-st., Cavendish-sq.	Tuesday	7 P.M.
Society of Arts	Adelphi	Wednesday	8 P.M.
Geological	Somerset-house	Wednesday	8 P.M.
Pharmaceutical	17, Bloomsbury-square	Wednesday	9 P.M.
Ethnological	27, Saville-street	Wednesday	8 P.M.
Literary Fund	73, Great Russell-street	Wednesday	3 P.M.
Royal	Somerset-house	Thursday	4 P.M.
Antiquaries	Somerset-house	Thursday	8 P.M.
Royal Society Literature	4, St. Martin's-place	Thursday	4 P.M.
Medico-Botanical	32, Sackville-street	Thursday	8 P.M.
Astronomical	Somerset-house	Friday	8 P.M.
Philological	Lord Lib., 12, St. James's-w.	Friday	7 P.M.
Royal Botanic	Inner Circle, Regent's-park	Saturday	3 P.M.

## PROCEEDINGS OF PUBLIC COMPANIES.

## MEETINGS DURING THE ENSUING WEEK.

MONDAY	Wheal Sophia Mining Company—Catherine Wheal Inn, St. James's, Three.
	General Mining Company for Ireland—Dublin, at Eleven.
	Llanelli Railway and Dock Company—offices, at One.
	Grand Union Canal—offices, at Eleven.
TUESDAY	Groydon Canal Company—George and Vulture Tavern, at Ten.
	Basingstoke Canal Company—Gray's Inn Coffee-house, at Two.
	Wheal Salt Mining Company—at the mines.
	North Kent Railway—London Tavern, at One.
	Dover Sugar Company—offices, at Twelve.
WEDNESDAY	Mexican and South American Company—offices, at One.
	India and London Life Assurance Company—offices, at One.
	General Cemetery Company—offices, at Two.
THURSDAY	United Hills Mining Company—offices, at One.
	Grand Junction Water-Works Company—offices, at Twelve.
	Metropolitan Joint-Stock Convenance Co.—Pine Apple Tavern, at Five.
FRIDAY	St. John del Rey Mining Company—offices, at Two.
	Commercial Dock Company—offices, at One.
SATURDAY	Well Barbera Mining Company—British Mining Offices, at Two.
	Depsford, Rotherhithe, and Bermondsey Gas Company—London Tavern.

(The meetings of Mining Companies are inserted among the Mining Intelligence.)

X **JAMAICA SOUTH MIDLAND JUNCTION RAILWAY.**—A meeting of proprietors was held at the London Tavern on Friday.—Dr. HARWOOD in the chair.—The report stated that the supplemental bill had passed the House of Assembly, and that application would be made to procure the Royal Assent. It authorises 5 per cent. to be paid on calls during the construction of the railway, and the option of stopping at Old Harbour, or at other places on the line; it extends the time for taking land and completing the line to the end of December, 1862. That the directors have determined to suspend active operations during the present monetary difficulties, and to invest 14,000*l.* of the assets in Exchequer-bills. That the traffic on the Jamaica Railway now averages about 100*t.* per week, more than at the corresponding period of last year. The total receipts were 19,248*l.*, and the expenditure 4382*l.*—leaving a balance of 14,871*l.* The CHAIRMAN stated, that they had obtained two Acts of Parliament, and a perfect survey, with detailed plans and sections, at a cost of less than 600*l.*, including one year's expenses since the Act was obtained. That interest at the rate of 5 per cent. would be allowed on calls, of which he thought there was but little chance at present, although the first section of the line, 12 miles in length, could be constructed (a single line) at a cost of about 800*l.* per mile: they had power, however, to make a double line if necessary.

X **GRAVESSEND AND ROCHESTER CANAL AND RAILWAY.**—The annual meeting of shareholders was held on Wednesday, at the George and Vulture Tavern, Cornhill.—Mr. MOXON in the chair.—From the report, it appeared that this undertaking had been purchased on the 8th of May, 1846, by the South-Eastern Railway Company, for the sum of 310,000*l.*, when a deposit of 31,000*l.* was paid in cash. The bill authorising the sale having passed, the South-Eastern Company, on the 25th of September last, paid the remainder of the purchase-money—viz.: 279,000*l.*, in South-Eastern Railway mortgage bonds, at the same time receiving complete possession of the entire property. No time was lost by the directors in reimbursing the capital and interest due to the holders of preference shares. In the first and second distribution, 96 per cent. was paid on the Thames and Medway loan notes, and 71,12s. per share on the original shares. It is expected, after the outstanding claims and liabilities are settled, that some further dividend may be made. The total sum representing securities paid off amounted to 269,547*l.* The directors paid as a gratuity, the sum of 119*l.* to foremen and others, having served the company on the canal from 14 up to 38 years, and also a sum of 243*l.* to the family of their late superintendent—the net profit from the railway traffic amounted to 970*l.* Resolutions were passed adopting the report and accounts, re-electing the directors, authorising the payment of a sum of 300*l.* with interest, at 4 per cent., disbursed by certain shareholders in February, 1842, in promoting the formation of a company to make the railway; authorising the payment of 1800*l.* in South-Eastern Railway bonds, jointly to Messrs. E. and F. Collier, for their able services as clerk and secretary for 28 and 14 years respectively; and also authorising the presentation of 1000 guineas to Mr. Moxon, as a testimonial of his valuable services to the company, during a period of 28 years.

X **REGENT'S CANAL COMPANY.**—The half-yearly meeting of this company was held at the establishment, City-road Basin, on Wednesday last.—J. E. D. BETHUNE, Esq., took the chair.—The accounts showed the receipts to be 21,103*l.* 8s. 5d., out of which the tolls were 19,170*l.* 16s. 7*d.*; the balance was 13,226*l.* 13s. 6*d.* In the report it was stated, that the committee had agreed to withdraw their application for a bill to make the railway, on account of the opposition and expense it would be likely to cause. The dividend declared was 12s. 6*d.* per share.—Mr. ALD. WILSON, on the motion for the election of the committee being proposed, moved, that they be elected *seriatim*, as, in his opinion, two valuable members of the committee, Mr. Brodie and Mr. Pilcher, had been made to retire, to give way to two noblemen, who were of no real use to the committee in the management of the canal business.—The CHAIRMAN, having first proposed the election of the Earl of Macclesfield, Mr. ALD. W

## RAILWAY AND COMMERCIAL GAZETTE.

### Law Intelligence.

#### THE COST-BOOK SYSTEM—SOUTH WHEAL FRANCIS. DUCHY OF CORNWALL COURT.

His Royal Highness Prince Albert, in virtue of his office of Warden of the Duchy of Cornwall, held a Court on Saturday, in the council chamber of the Privy Council Office. Besides his Royal Highness, the Court consisted of the Lord Chancellor, Lord Lyndhurst, and Mr. Pemberton Leigh. The case under consideration was that of *REYNOLDS v. BASSETT*.—Mr. Bacon (with whom was Mr. Nicholson) appeared for the appellants; and Bethell (with whom were Mr. Follett and Mr. Montague Smith) for the defendant. This was an appeal from the decision of the Vice-Warden in the Stannaries Court, on the petition of Elizabeth May Bassett, the representative of J. Bassett, claiming the property of 16 shares in South Wheal Francis Mine, in the Duchy of Cornwall. From the statements of counsel, it appeared that the property in question belonged originally to Mr. Wm. Reynolds, who acted both as manager of the mine, and as steward or agent to Mr. Bassett; that a transfer of mining property is effected, according to the custom in Cornwall, by an entry in the cost-book of the mine; that the 16 shares in question were so entered, leaving a line drawn through Mr. Bassett's name. The mine which had been previously worked at a loss, and suspended, was reopened, and for a year proved a losing concern, Mr. Bassett having, as shown by an entry in Mr. Reynolds's hand-writing, paid in July, 1842, 142 lrs., as his share of the cost so incurred. Since that period, however, it had become more profitable, and the petition on which the present appeal was founded, claimed for the representative of Mr. Bassett, deceased, in 1843, the property of the share in question.

Mr. Bacon, on behalf of the appellant, contended, that there had been no complete transfer of the shares, resting his argument upon the following grounds: that the entry in the cost-book, which would have created such a transfer, was scored through; that Mr. Bassett was at the time when the transfer must have taken place in such embarrassed circumstances that he was quite unable on his own account to enter into a speculation of the kind; that an account rendered by Mr. Reynolds to Mr. Bassett, in December, 1842, and which must have embraced the period when the latter ought to have paid his share in the loss of the mine, amounting to 142 lrs., bore no reference to that transaction; and that the entry in the merchant's ledger of that payment contained the name of Mr. Reynolds bracketed with that of Mr. Bassett. The learned counsel then proceeded to argue that, supposing the property in the shares in question did at the time indicated by the entry in the cost-book belonging to Mr. Bassett, there was good ground to believe that they had been retransferred to Mr. Reynolds. In proof of this position he relied upon the fact that Mr. Reynolds had paid the loss, with respect to those shares in working the mine until it had become profitable, out of his own pocket, and after Mr. Bassett's death; that the erasure in the entry, Mr. Bassett's embarrassments, and Mr. Reynolds's known probity of character, furnished sufficient grounds (though no positive proof existed) for referring the matter back for further inquiry to be made in such manner as the Court might think fit.—Mr. NICHOLSON having followed on the same side,

The LORD CHANCELLOR, without hearing counsel on the other side said, it was quite clear that the entry in the cost-book constituted a complete transfer; that under such circumstances the onus of proving any right which might divest the title so conferred rested on the appellant; that the Vice-Warden had that question raised before a jury, who were of opinion that no proof of any transfer existed; that he (the Lord Chancellor) concurred in the justice of that decision, and should, therefore, recommend his Royal Highness to affirm the judgment of the court below, with costs.

Lord LYNDHURST and Mr. P. LEIGH having concurred, his Royal Highness PRINCE ALBERT pronounced judgment accordingly, and the Court rose.

#### SHARE MORTGAGES—IMPORTANT QUESTION.

##### STANNARIES OF CORNWALL.

*SYMONS v. DAVY.*—This was a case in equity, heard before his Honour the Vice-Warden, on the 7th of May, and fully reported in the *Mining Journal* of the 22d. It involved a new and important point—whether a person holding a mine share in mortgage has the power to sell that share. His Honour took time to consider; but has hastened his decision, in order to avoid the inconvenience that might arise from the fluctuation of the cause of action—a mining share in Wheal Trelawney. In the judgment now sent down, his Honour first reviews the pleadings (no oral testimony having been adduced at the hearing); and then proceeds to state, that the first and main question of the case arose on the letter of the 8th February, 1845, which letter the defendant contended conferred on him a right to sell, without the aid of this, or any other, court, “at if the expiration of six calendar months, the plaintiff's debt to him were not paid.” His Honour was of opinion that this letter neither contained nor conferred any power of sale, or any immunity from the ordinary obligations of a mortgage. The object and effect of the letter, generally, was to narrow and derogate from the apparent right of the defendant, which arose from the absolute transfer, and not to confer any new rights on him as mortgagor. It was the part of the mortgagor to confer such rights; and it could hardly be supposed that a consent on the part of the mortgagor to negative notorious, and so favoured a right in himself as that of redemption, was intended to be contained, or could be found in words used by the mortgagor only, in a mere writing, without legal form, and without certainty; and from which (supposing implication in such a subject were allowed) no implication could safely be raised. The exercise of all such rights of ownership under the transfer as may belong to the transferee might exist, not only in the receipt of dividends, and in auditing and allowance of mining costs, but in throwing up the share, if the prospects of the adventure, and the conduct and condition of the mortgagor should justify the mortgagee in taking that course. A right of ownership in a mortgagee was not simply a right of ownership, as in an unconditional purchaser. In a court of equity, a mortgagee had no such rights conferred merely by the mortgage conveyance. The phrase, therefore, seemed to give no powers to the mortgagee, but to restrain him at law, not merely in equity, from doing any thing legal or equitable against the mortgagor's interest, till six months should have passed. If so, then the effect of the phrase was to make the mortgagee's interest absolute at law, when those six months were passed; whereas the parties come within the cognizance of equity, which rather forbids than allows a mortgagor to avail himself fully of his legal title, without its previously obtained consent. But assuming that, from the nature of this transferred interest—a mining share—a decree of foreclosure was not necessary; it did not follow that defendant could alienate that interest, without previous notice given to the plaintiff. And it appeared to his Honour, that the defendant had alienated this mining share without notice; for he confessed the want of notice, when he admitted that he told plaintiff, in February, 1842, that “he thought the plaintiff would be well pleased that he had sold the share.” And, had he not confessed the want of notice, he must have proved notice affirmatively. The defendant was bound, as between himself and plaintiff, to exercise his rights in a prudent and business-like manner (*per V. C. Knight Bruce, 2 Collyer, 465.*) He might have acted (as he thought) for the best, when he sold the share for 185l.; but he could hardly be said to have acted in a business-like manner, or prudently to have exercised his rights, when he, without notice to plaintiff, deprived him of his right. The defendant did not deny his obligation to account with the plaintiff; but he denied that the account should be taken on any price beyond what he had received from the sale of the share. The first and main question, which involved in it the right to sell the share, was, therefore, converted into a second question—what was to be taken as the value of the share? If the defendant had a right to sell, its value would be, of course, that which he received for it. But as his Honour could perceive no power of sale, nor any right in defendant to sell without notice, if he had the power, it might be that the sum received was not to be taken as the value which might have been received. Had defendant possessed another share in Wheal Trelawney, the Court might have been justified in considering such share as that which did belong to plaintiff, and in ordering its transfer to him after an account before the registrar. But it was admitted, and must be assumed from the pleadings, that the defendant had no other share in Wheal Trelawney. The Court could not order defendant to purchase a share (for a mining share was not like stock) and transfer it to plaintiff; as the defendant might, from inability to find a share on sale, involuntarily and unavoidably disobey the order. The suit, therefore, was one for an account simply; but to avoid inconvenience that might result from the fluctuating nature of the cause of suit, his Honour felt himself justified in adopting the suit, and in giving an opinion on the time at which the value of the share should be taken. And he apprehended that the value of the share must be taken to be the price at the time when plaintiff was ready and offered to do and receive what was just as between him and defendant; for, had defendant then done what, on his part, was just, and had paid the plaintiff the then value of the share, or allowed that value in account, neither party could then, nor after (whatever might have been the fluctuations in value), have justly complained. His Honour concluded, by decreeing that “the defendant must, therefore, account before the registrar with the plaintiff, and the value of the share in such account must be its full value in February, 1846. If that value be highest on the 3d February, 1846, that will be the value; for then, in my opinion, there is evidence that plaintiff was willing to account, though on the 18th day of the same month, he more formally expressed himself as being willing to account.”

*Cwm Avon Works—TESTIMONIAL OF RESPECT.*—Several clerks and agents met at the house of Mr. James Cross, Cwm Avon, on the 13th May, to present Mr. J. Hore, formerly of Truro and Redruth, who had been 12 years a cashier in the Cwm Avon Works, with a silver tea-pot, of the value of 20l., as a small token of respect and esteem. It was presented by Mr. Hopkin, and Mr. S. Banford, and bears the following inscription:—“Presented by the clerks and agents of Cwm Avon Works, to Mr. John Hore, late cashier, as a small tribute of sincere esteem and regard.”

#### REPEAL OF THE COPPER ORE DUTIES.

We noticed in the *Mining Journal* of the 15th May a letter to the Earl of Clarendon, as President of the Board of Trade, on the subject of the copper ore duties, by Sir CHARLES LEMON, Bart., and endeavoured to show the fallacy of its arguments, and the incorrect nature of the assertions introduced. We are happy to observe, that the committee appointed for the purpose of urging on the Government the necessity of their repeal, have at length published a reply, in which the whole fabric of the cause of protection is most completely demolished, and the policy of carrying out free trade principles to the utmost clearly established. We now proceed to lengthen extracts, without comment, leaving the unanswerable arguments used to carry conviction to the minds of our readers.

It is, in fact, a matter of satisfaction to observe, that Sir C. Lemon does not rest his defense of the copper ore duties on any ground of principle, nor does he even assert that their continuance is necessary for the protection of British mines; on the contrary, he says, in page 24 of his letter, “I do not conceal my impression that the fears of those who cling to the duty are somewhat exaggerated;” and in another place, after stating that he conceives that their repeal would have a tendency to aggravate any ill fortune which might befall the working miner, in his present depressed position (a state of depression, we may remark, certainly not greater than that under which the working classes of most other parts of the kingdom labour at this period of scarcity), he adds, “I do not say that the repeal of the duty on copper ores will necessarily produce this effect.” If, therefore, it is a matter of so much doubt, even in the mind of the Member for West Cornwall, who announces that his sympathies are wholly for the mining population who form so large and influential a portion of his constituency, whether the repeal of the duties would have an injurious effect upon their interests, we submit that there is the less reason for refusing a concession, which we maintain is essential for the preservation of so important a trade.

All that Sir C. Lemon's statement amounts to is, that the advocates for the repeal of the duties have exaggerated the extent of the evil which has arisen from their operation, and that, in his opinion, they ought to be removed until a case of greater injury has been made out. He appears to think it exceedingly unreasonable that we should complain until we have quite lost the trade, and other countries have possessed themselves of it; then, he thinks, we might have some grounds for asking Government to remove the restrictions, in order that we might attempt to regain it. If the trade had gone from us to the extent required to convince Sir C. Lemon that it is in danger, we should not attempt to waste the time of your lordship and of the Government, and permit us to add, our own also, by vain clamours after that which would be irrecoverable. Trade is not easily diverted from an accustomed and well-worn channel into a new direction; but when the difficulties of the change in its course have been overcome, and a new set of interests have been created, and made dependent upon it, in the new lands through which it has been made to flow, all past experience shows, that to force it back again into its original channel is an impracticable task. No stronger illustration of this truth need be adduced than the working of the lead ore duties, as shown in page 22 of the parliamentary return. There is abundant evidence, in the documents which Sir C. Lemon has made the subject of his letter to your lordship, to show that since the imposition of the duty in 1842, this trade has begun to take a direction in which it was previously unknown, and that a sufficient portion of it has already been diverted to afford the strongest grounds for believing that if the moving cause is continued much longer in operation, the only trace of it which will be left to us will be the vacancy which its absence will occasion.

We have stated that Sir C. Lemon does not advance any grounds for the maintenance of the duties as essential for the protection of any British interest; except, indeed, we regard in this light his allusion to it as a desirable addition to the revenue, which, however, we look upon merely as an invocation for aid to the Chancellor of the Exchequer, who in a time of less pressing emergency would, we are sure, be quite beyond the reach of so paltry a consideration as that of a steadily decreasing revenue, now amounting to 40,000l. a year only, obtained by the sacrifice of important trading and manufacturing interests; whilst indirectly, by discouraging the export of our manufactures, and diminishing the employment of our people, a great and permanent loss of revenue will undoubtedly be occasioned. Neither does he attempt to dispute the injurious effect which the establishment in other countries of the smelting of the foreign copper ores would have upon the interests of the British miner; and it is unnecessary, therefore, to enlarge here upon a branch of the subject, with the bearings of which your lordship and the Government are already fully acquainted.

We proceed, therefore, to apply ourselves to the objections raised by Sir C. Lemon to the various grounds on which our claim for the repeal of the duties is founded, which he has compiled in the shape of ‘pleas’ from the documents published by the order of the House of Commons.

And, in the first place, we must remark that these pleas, as drawn up by Sir Charles Lemon, state the case of the advocates of the repeal of the duties in some points incorrectly, in others unfairly, and as a whole incompletely.

We will not follow Sir C. Lemon's example, by imputing to him an intention wilfully to misrepresent the case which he assumes to refute, although we have a right to complain that the mode in which he has stated these ‘pleas,’ gives them the appearance of having been extracted verbatim from the documents in question, when, in fact, they are his own compilation, and in some cases from misconception, and in others from being deprived of their context, are made to convey a different meaning from that intended, and altogether express incompletely the views of the petitioners. It is difficult, however, to squint him of an intention to misrepresent Messrs. Gemmill and Co., in the use which he has made of an extract from their letter to J. MacGregor, Esq., Secretary of the Board of Trade, of the 5th October, 1843, by quoting only a small portion of a sentence, omitting the context, and thereby giving to their words a meaning precisely the opposite of that which they were intended to convey. The following is the complete extract from Messrs. Gemmill's letter, marking by italics the portion which Sir C. Lemon has thought it fair to omit:—

“From the above remarks, it would appear that the **IMMEDIATE** effects of the change have been mostly those contemplated by her Majesty's Government—viz., that it has, to a moderate extent, increased the trade of the British shipowners, and been a source of some revenue to the British Government; but its **ULTIMATE** effects promises to be most disastrous, as far as it will, almost certainly, deprive us of the whole of our trade in smelting foreign ores, France, or Belgium—and in so far as it is almost equally certain to throw out of employment two-thirds of the vessels now engaged in the carrying of ores, and in so far as it cannot fail deeply to appreciate the feeling of hostility to Great Britain produced among foreigners by former restrictive measures of our Government, while it can neither permanently benefit our miners, nor long continue to be a source of revenue to our national treasury. It appears to me, that the next proper course for the adoption of her Majesty's Government, will be to add copper or zinc of DUTY, or at a duty merely nominal.”

When it is remembered that Messrs. Gemmill's letter was written some time before the injurious operation of the duties was actually experienced in the shape of diminished imports, it is remarkable how correctly the predictions which they expressed have been verified.

Sir C. Lemon has also altogether omitted to notice some of the most material grounds upon which the petitioners rested their case; but it will be sufficient that we confine ourselves for the present to the points which he raised.

“The first ‘plea’ which he sets up for diminution is, ‘that copper ore is now the only raw material of manufacture subject to duty.’ This wording does not correctly convey the statement actually made, which was, ‘that copper ore is the only raw material imported for manufacture, which is subject to duty,’ a statement which is well known by the department over which your lordship presides to be substantially correct. Nevertheless, Sir C. Lemon imputes it as an intentional misstatement to the petitioners, ‘who,’ he says, ‘have preferred to shut their eyes, lest they should see timber and tallow staring them in the face.’ Timber and tallow!—what parallel is there between these articles and copper ore? In what sense are they raw materials imported for manufacture, we would ask Sir C. Lemon? They are imported for consumption, and not for manufacture, and we cannot conceive how so obvious a distinction could escape his notice, especially as in the next sentence he states that ‘they are extensively consumed in the Cornish mines;’ after this we are not surprised that he ‘never could understand why sugar was not a raw material.’ It is certainly quite as much in point as ‘timber and tallow.’ The unfairness which induces him to charge, upon such a foundation, a ‘misstatement’ on the petitioners, is well followed up in the next sentence, in which he calls on them to ‘give back to the miner the relief from the duties on timber which he then (previous to the tariff of 1842) enjoyed,’ as if the petitioners had either been the means of depriving the miner of the drawback formerly allowed on timber consumed for mining purposes, or had it in their power to restore that privilege.

The second ‘plea’ is, that ‘in consequence of duties first imposed by the tariff of 1842, the trade in foreign copper ores to this country has been, and is likely further to be, materially diminished.’ Sir C. Lemon remarks thereupon, that ‘this statement represents a growing case of diminution, arising from a cause which commenced in 1842.’ And he gives a statement of the imports of metallic copper in ores, from 1838 to 1846, inclusive, from which he arrives at the extraordinary conclusion, that instead of a growing diminution, there has been ‘a vast increase,’ notwithstanding his own figures show that the import had diminished from 13,246 tons of copper in 1844, when it reached its ‘summit level,’ to 11,172 tons in 1845, and 10,878 tons in 1846.

“With respect to the diminution of import in consequence of the duties of 1842, until the session of 1837, when the law permitting the smelting of foreign copper ores in bond was passed, and for several years subsequently, no copper ores were imported into this country. The import of copper ores from Chile, in fact, may be said to have commenced with the year 1834, in which the import was 1671 tons of ore. There existed, however, from a remote period, a very considerable production of copper in Chile and Peru—import in quality, and requiring a subsequent refining process to be made available for manufacturing purposes. The results of the first shipments of copper ores to England was such as to encourage larger consignments: the import increased from 250 tons of ore in 1832, to 20,500 tons in 1843, in which year it reached its highest point.

“The change in the law in 1842 was understood by all parties at the time to be, as stated by Mr. Gladstone, in the House of Commons, on the 11th of July of that year, ‘an experiment,’ the results of which could not be foreseen: considerable disadvantages had been attendant upon the system of smelting in bond, and until the results of the shipments of ore made under the new system were experienced, there were no grounds for altering the course of the trade.

“Moreover, the intelligence of the change in the law did not reach Valparaiso before quite the close of 1842, and could not be generally known in the mining districts of Chile and Peru until some time in 1843. The South American miners had, therefore, no inducement to make any strong effort to change the current of their trade until the results of the shipments in 1843 were known, which they could not have been until 1844, and until that year the imports continued to increase. In 1844 the unfavourable results of the shipments under the duty became known; but, from the nature of the trade, no immediate change of moment could be made. In the first place, nearly all the Chilean miners were largely indebted to the British merchants, who had advanced them capital to work their mines, for which there were no means of payment but by delivery of ore for shipment to England; and, even had not this inducement existed, they had not the means of giving on the instant a new direction to the trade. They had allowed many of their smelting furnaces to go to ruin, and had to rebuild them, and for this purpose they had to provide bricks and the other necessary materials; and they had ceased to accumulate stocks of wood for smelting. But there is abundance of evidence proving that extensive means for re-establishing smelting were taken in Chile in 1844, not only by the resumption of the old furnaces at the mines, but by the establishment of works upon the English principle, and with the aid of English workpeople, which works now produce a quality of copper fully equal to that made at Swansea, as stated by Mr. Munro, the results of trials in his own works, at our recent interview with Lord John Russell. Another cause which for a time prevented any change in the current of the trade was, that England was the only available market for copper ores, as other countries could not buy them until they had established means of smelting. But as soon as other countries saw an opening, and when the ships of other countries found themselves deprived of the conveyance of the ores to England, in which they had, previously to the tariff of 1842, participated in common with British shipping, they began to erect smelting works, and as soon as their preparations were complete, they commenced purchasing the ores.

“In reference to the ores of Cuba, also, it is not difficult to explain why their import into this country did not at once diminish, but, on the contrary, even increase, until the evil influence of the duty began to show itself. The great majority of the copper mines of Cuba are held and worked by British capitalists. The management of these mines are in England, the capital with which they are worked is English, and their pro-

duce is naturally sent to England, in return for the money advanced. It would under circumstances of the most extreme pressure that the current of this trade could be diverted from England. But what does Sir C. Lemon himself show? Why, that these Cuban mines, from having been prosperous and paying concern, yearly increasing in their production, had arrived at such a state of depression, that the Cobre Mine alone had fallen off in production in 1846, as compared with the previous year, 7996 tons of ore, and 93,014l. in the value of its produce; whilst at their last meeting ‘the directors apologized for making no dividend, on the ground that the duty ran away with all their profits, to the amount of 12 or 15,000l.’ The Santiago Mine, the next in magnitude in the Island, had fallen off in a still greater proportion, the decrease having been 3123 tons of ore, and 46,186l. in money. Sir C. Lemon says, that this depression is to be attributed to ‘the chances of mining,’ as if these chances were not affected by the payment of the duty, which in the year 1846 amounted to 13 to 15,000l. on the diminished production of one mine. And we beg to remind your lordship, that the parties chiefly interested in these mines are British subjects—that they largely employ British manufacturers, and British labour—and that they are, therefore, fairly entitled to the consideration of the British Government.”

#### STATEMENT OF THE WORKING OF THE COPPER COPPER MINES.

	Tons of copper ore.	£. s. d.
Produced in the mines in 1842	20,145	0 ... Sold for 234,096
1843	20,914	10 5
1844	22,326	4 ... 235,820
1845	17,468	11 ... 195,417
1846	15,291	9 ... 163,601

[To be concluded in next week's *Mining Journal*.]

#### The Miners' Manual, and Shareholders' Guide.

BY J. Y. WATSON, ESQ., F.G.S.

TRELEIGH CONSOLIDATED MINES, in the parish of Redruth, Cornwall; divided into 5000 shares—6d. per share paid up—market value, 4d.; conducted on the old scrip system. Directors in London, C. H. Ashley, Esq., G. Bowness Carr, Esq., G. Thomas, Esq.; secretary, Mr. W. Nicholson; London office, 57, Old Broad-street; manager in Cornwall, Capt. W

## THE MINING JOURNAL,

IMPROVED LIFTING JACKS.  
MANUFACTURED BY GALLOWAYS AND CO., KNOTT MILL,  
MANCHESTER.



"The attention of parties who employ  
Lifting Sacks,"

is respectfully requested to the superiority of those annexed, over those hitherto in use.

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PATENT K AMPTULICON FACTORY, 18, CORNHILL.  
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PROJECTED RAILWAYS.

GREAT REDUCTION IN PRICE.

Extensively used in mortar and concrete at the great tunnels on the London and Birmingham Railway, in the foundations of the new Houses of Parliament; sea walls on the South Devon Railway, Clifton Reservoirs, and other works of importance.

From its chemical qualities, the metallic sand forms, in admixture with lime and common sand, a cement, mortar, or concrete, of flinty hardness, and almost entire incomparability; and, from its adhesive and impervious qualities, it completely and for ever excludes water. The more it is exposed to the atmosphere, and to wet and damp, the harder and more durable it becomes.

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Silica	49	Lime	6
Oxide of iron	32	Magnesia	2
Alumina	8	Zinc	3

LEMONNIER, HAIR-WORKER to the Queen, and Member of the Academie de l'Industrie, and who obtained a Silver and Platina Medal at the Exhibition, has just INVENTED several NEW DESIGNS, as Palm Trees, Wreaths, Knots, and Cyphers, which he executes with hair in its natural state, without using gum or other cement. A variety of trees executed by a mechanical process.

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Also, just published, and may be had gratis,

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The author of this singular and talented work is a legally qualified medical man, who has evidently had considerable experience in the treatment of the various disorders, arising from the follies and failings of early indiscretion. The engravings are an invaluable addition, by demonstrating the consequences of excesses, which must act as a salutary warning to youth and maturity, and by its perusal, many questions may be satisfactorily replied to, that admit of no appeal, even to the most confidential friend."—*Evo.*

"Unquestionably this is a most extraordinary and skilful work, and ought to be extensively circulated; for it is quite evident that there are peculiar habits acquired at public schools and private seminaries, which are totally unknown and concealed from the conductors of those establishments, and which cannot be too strongly reprobated and condemned. The engravings that accompany the work are clear and explanatory; and being written by a duly-qualified medical practitioner, will, doubtless, be the means of saving many a youth, as well as those of mature age, from the various evil consequences resulting from early indiscretion."—*Magna.*

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## Transactions of Scientific Bodies.

## MEETINGS DURING THE ENSUING WEEK.

Society.	Address.	Day.	Hour.
Asianic	14, Grafton-street	Saturday	2 P.M.
Western Scientific Institut.	Leicester-square	Monday	6 P.M.
Entomological	17, Old Broad-street	Monday	6 P.M.
Pathological	31, Regent-st., Waterloo-pl.	Monday	6 P.M.
Medical and Chirurgical	53, Berners-street	Tuesday	6 P.M.
Civil Engineers	25, Great George-street	Tuesday	6 P.M.
Zoological	11, Hanover-square	Tuesday	6 P.M.
Syro-Egyptian	71, Mortimer-st., Cavendish-sq.	Wednesday	7 P.M.
Society of Arts	Adelphi	Wednesday	8 P.M.
Geological	Somerset-house	Wednesday	8 P.M.
Pharmaceutical	17, Bloomsbury-square	Wednesday	9 P.M.
Ethnological	27, Sackville-street	Wednesday	8 P.M.
Literary Fund	73, Great Russell-street	Thursday	4 P.M.
Royal	Somerset-house	Thursday	8 P.M.
Antiquaries	4, St. Martin's-place	Thursday	4 P.M.
Royal Society Literature	32, Sackville-street	Thursday	8 P.M.
Medico-Botanical	Somerset-house	Friday	3 P.M.
Astronomical	Lond. Lib., 19, St. James's-sq.	Friday	7 P.M.
Philological	Inn Circle, Regent's-park	Saturday	3 P.M.

## INSTITUTION OF CIVIL ENGINEERS.

## PRESIDENT'S CONVERSATION.

Sir John Renzie (president of the institution) gave his first conversations this season, on Saturday evening, which was both numerously and brilliantly attended by the members of the institution and by visitors, who appeared to be alike delighted with the intellectual treat provided for them in the extensive collection of works of science and art, arranged in the suit of apartments, and with the host's generous hospitality, in the refreshment rooms.

It would be impossible to enumerate all the objects of interest in the works of art or models of machinery exhibited: we must, therefore, restrict our notice to some of the most prominent.

Count D'Orsay contributed some spirited statuettes and busts of the Emperor of Russia. Daniel O'Connell, the Duke of Wellington, &c., which were deservedly much admired. Paintings and sketches by Oliver, Busk, Wood, Schenck, Digby, Wyatt, and Ward; enamel paintings by Bone; chalk drawings, from Mr. Fuller; and some beautiful sketches, from Meiss, Ackermann's collection, were profusely scattered through the rooms. Taylor, Wilkins, and Jordan, had some excellent specimens of machine carvings; and Mr. Rogers some delicate examples of iron carvings.

A curious specimen of laminated granite, from Dartmoor, contributed by Mr. Freeman, appeared to excite much interest among the geologists.

The collection of models was more extensive than we ever remember to have seen it, and as the whole of the ground-floor was devoted to their reception, there was ample space for displaying them to advantage.

A series of models from the Admiralty exhibited the construction of a 50-gun ship at various epochs, from the highly decorated, but clumsy, vessel of 1637, to the simple, but elegant and effective, "Fame" of 1846. Other models illustrated the most approved forms of bows, sterns, and midship section; and the general lines of the vessels composing the experimental squadron were contrasted by a series of uniform models. The wave principle was illustrated by models from Mr. Scott Russell and Dr. Phipps; and the progress of the steam navy was exemplified by beautiful models of vessels and engines, constructed by Messrs. Rennie, Maudslay, and others. The screw propellers, by G. Rennie, Woodcroft, and Maudslay, excited much attention. Models of Brunel's block machinery, and Hurwood's patent textile, were appropriately mingled with this part of the collection.

All the various systems of electrical telegraphs were represented, and were at work in the apartments.—Bain's electric clock.—Nott and Gammie's simplified single-wire telegraph—the Electric Telegraph Company's complete and efficient system, as used at the Admiralty.—Brett and Little's apparatus, and Brett's writing telegraph, in which, by depressing a series of keys, corresponding letters are brought into contact with a continuous strip of paper, and the communication is printed at any number of miles distant.

Mr. Corper contributed a series of models of the old French and other telegraphs, in order to form a contrast with the present instantaneous and certain methods of communication.

There was a series of models of bridges of all kinds, amongst which we remarked one of corrugated cast-iron, erected by Mr. Barlow on the Tunbridge Railway.

The wrought-iron tube bridge, by Mr. R. Stephenson, at Conway, beautifully shown, on various scales, by Salter's elegant card-board models.

A cast-iron girder bridge, by Mr. Bothwick, of the same construction as that over the Dee, at Chester, and which is now exciting such painful interest.

The drops for loading coal vessels at the Bute Dock, Cardiff, by Mr. Higham, excited much attention, and appeared to be an ingenious modification of the system used in the north, well adapted to the purposes of the South Welsh railways and shipping ports.

Stephenson's long boiler locomotive, Bessemer's axles, Dunn's simple and elegant turntables, Stevens' efficient railway signals, and Clarke and Varley's new atmospheric railway tube, formed an interesting series of railway models.

Cochrane's machine for sawing out carved timbers of all sorts, without waste, was worked, and was universally admired. It was stated that these efficient machines were now being introduced into the royal dockyards.

Little's very ingenious new printing machine, by which the number of sheets now dispensed, greater as the quantity seems, can be doubled, was also at work, and excited much attention.

We must, reserve until the next meeting the notice of the other models, which were so numerous and well chosen that it is impossible to do justice to them all.

Among the guests we noticed almost everybody of eminence in science and art, and a number of the aristocracy, who, from their Parliamentary duties, have their attention now directed to scientific matters. The president received his guests with that distinguished urbanity which is characteristic of him, and his obliging and hospitable attention to his friends, in which he was ably seconded by Mr. Manby, the secretary, was beyond all praise.

JUNE 1.—Sir J. RENZIE (President) in the chair.

The paper read was "An Account of the iron barque *Josephine*, of Liverpool," by Capt. Masters, who commanded her in the voyages she has made. The subject of iron vessels is one of great importance, and the use of that material in naval architecture has been steadily progressing since it was introduced for sea-going vessels by Mr. Manby, in the year 1821, and which was the only vessel that ever conveyed a cargo direct between London and Paris, without transhipment. Sanguine hopes had been entertained of introducing iron for vessels of war; but it appears from the partial accounts that have been made public of the results of the experiments at Woolwich and elsewhere, that the effects of cannon-shot upon iron vessels are more destructive than upon timber. The paper read was a plain and somewhat dry specification of the construction of the vessel, which will, however, when printed in *encre* in the minutes of proceedings, be extremely useful. The main dimensions of the barque *Josephine* are—Length, over all, 99 ft. 3 in.; extreme breadth, 24 ft. 6 in.; depth of hold, 9 ft. 9 in.; register tonnage, 168 tons; by old measurement, 221 tons. She was of a peculiar build, differing from almost any other merchant-ship, being intended for service in the Mexican trade, and calculated to cross the bar of Tampico, and other impediments. She was entirely of iron, even to the bulwarks; and as she lay low in the water, drawing 9 ft. 6 in., and 8 ft. 8 in. forward, her ports were hung on hinges forward, so that they should act as valves, and allow the water to escape from the deck, and yet shut off themselves when she heeled over deep on her side. Her general rate of sailing was from 11 to 12 knots per hour; she was very buoyant and very dry, rising well to the sea. There was great capacity for stowing the cargo, owing to the absence of large projecting timbers. She was somewhat damp forward and aft, but was very dry in the main hold. There was not found to be any difference in the health of the crew from that of wooden vessels: she was a little cooler than other ships, owing to her being so deep in the water, and the thin material did not retain the heat like wood. Iron ships have generally been found to get very wet.

The *Josephine* was, however, paid with various compositions as experiments. That which succeeded best was—1 barrel of varnish, 23 cwt. of best tallow, 40 lbs. black lead, 7 lbs. brimstone, and 70 lbs. arsenic. This being applied hot, the iron having been previously warmed and paid with boiled linseed oil, appeared to have prevented foulness, as after her voyages there was little weed or grass, and scarcely any barnacles; but very slight oxidation took place, and that only where the composition had been rubbed off. They were as much annoyed by rats as in a timber ship, nor could they be destroyed by any of the means adopted.

The principal feature of the paper was that which treated of the local attraction of the compass, which can scarcely be in an abridged form. It appeared that as long as the ship was on an even keel, and perfectly upright,

## Law Intelligence.

THE COST-BOOK SYSTEM—SOUTH WHEAL FRANCIS.  
DUCHY OF CORNWALL COURT.

His Royal Highness Prince Albert, in virtue of his office of Warden of the Duchy of Cornwall, held a Court on Saturday, in the council chamber of the Privy Council Office. Besides his Royal Highness, the Court consisted of the Lord Chancellor, Lord Lyndhurst, and Mr. Pemberton Leigh. The case under consideration was that of *REYNOLDS v. BASSETT*.—Mr. Bacon (with whom was Mr. Nicholson) appeared for the appellants; and Bethell (with whom were Mr. Follett and Mr. Montague Smith) for the defendant. This was an appeal from the decision of the Vice-Warden in the Stannaries Court, on the petition of Elizabeth May Bassett, the representative of J. Bassett, claiming the property of 16 shares in South Wheal Francis Mine, in the Duchy of Cornwall. From the statements of counsel, it appeared that the property in question belonged originally to Mr. Wm. Reynolds, who acted both as manager of the mine, and as steward or agent to Mr. Bassett; that a transfer of mining property is effected, according to the custom in Cornwall, by an entry in the cost-book of the mine; that the 16 shares in question were so entered, but that a line was drawn through Mr. Bassett's name. The mine which had been previously worked at a loss, and suspended, was reopened, and for a year proved a losing concern, Mr. Bassett having, as shown by an entry in Mr. Reynolds's hand-writing, paid in July, 1842, £421 14s., as his share of the cost so incurred. Since that period, however, it had become more profitable, and the petition on which the present appeal was founded, claimed for the representative of Mr. Bassett, deceased, in 1843, the property of the share in question.

Mr. BACON, on behalf of the appellant, contended that there had been no complete transfer of the shares, resting his argument upon the following grounds: that the entry in the cost-book, which would have created such a transfer, was scored through; that Mr. Bassett was at the time when the transfer must have taken place in such embarrassing circumstances that he was quite unable on his own account to enter into a speculation of the kind; that an account rendered by Mr. Reynolds to Mr. Bassett, in December, 1842, and which must have embraced the period when the latter ought to have paid his share in the loss of the mine, amounting to £421 14s., bore no reference to that transaction; and that the entry in the merchant's ledger of that payment contained the name of Mr. Reynolds bracketed with that of Mr. Bassett. The learned counsel then proceeded to argue that, supposing the property in the shares in question did not at the time indicated by the entry in the cost-book belonging to Mr. Bassett, there was good ground to believe that they had been transferred to Mr. Reynolds. In proof this position he relied upon the fact that Mr. Reynolds had paid the loss, with respect to those shares in working the mine until it had become profitable, out of his own pocket, and after Mr. Bassett's death; that the erasure in the entry, Mr. Bassett's embarrassments, and Mr. Reynolds's known probity of character, furnished sufficient grounds (though no positive proof existed) for referring the matter back for further inquiry to be made in such manner as the Court might think fit.—Mr. NICHOLSON having followed on the same side,

The LORD CHANCELLOR, without hearing counsel on the other side said, it was quite clear that the entry in the cost-book constituted a complete transfer; that under such circumstances the onus of proving any right which might divest the title so conferred rested on the appellant; that the Vice-Warden had that question raised before a jury, who were of opinion that no proof of any transfer existed; that he (the Lord Chancellor) concurred in the justice of that decision, and should, therefore, recommend his Royal Highness to affirm the judgment of the court below, with costs.

Lord LYNDHURST and Mr. P. LEIGH having concurred, his Royal Highness PRINCE ALBERT pronounced judgment accordingly, and the Court rose.

## SHARE MORTGAGES—IMPORTANT QUESTION.

## STANNARIES OF CORNWALL.

*SYMONS v. DAVY.*—This was a case in equity, heard before His Honour the Vice-Warden, on the 7th of May, and fully reported in the *Mining Journal* of the 22d. It involved a new and important point—whether a person holding a mine share in mortgage has the power to sell that share. His Honour took time to consider; but has hastened his decision, in order to avoid the inconvenience that might arise from the fluctuation of the cause of action—a mining share in Wheal Trelawney. In the judgment now sent down, his Honour first reviews the pleadings (no oral testimony having been adduced at the hearing); and then proceeds to state, that the first and main question of the case arose on the letter of the 8th February, 1845, which letter the defendant contended conferred on him a right to sell, without the aid of this, or any other, court, “if at the expiration of six calendar months, the plaintiff's debt to him were not paid.” His Honour was of opinion that this letter neither contained nor conferred any power of sale, or any immunity from the ordinary obligations of a mortgage. The object and effect of the letter, generally, was to narrow and derogate from the apparent right of the defendant, which arose from the absolute transfer, and not to confer any new rights on him as mortgagor. It was the part of the mortgagor to confer such rights; and it could hardly be supposed that a consent on the part of the mortgagor to negative so notorious, and so favoured a right in himself as that of redemption, was intended to be contained, or could be found in words used by the mortgagor only, in a mere writing, without legal form, and without certainty, and from which (supposing implication in such a subject were allowed) no implication could safely be raised. The exercise of all such rights of ownership under the transfer as may belong to the transferee might exist not only in the receipt of dividends, and in auditing and allowance of mining costs, but in throwing up the share, if the prospects of the adventure, and the conduct and condition of the mortgagor should justify the mortgagor in taking that course. A right of ownership in a mortgagee was not simply a right of ownership, as in an unconditional purchaser. In a court of equity, a mortgagee had no such rights conferred merely by the mortgage conveyance. The phrase, therefore, seemed to give no powers to the mortgagee, but to restrain him at law, not merely in equity, from doing any thing legal or equitable against the mortgagor's interest, till six months should have passed. If so, then the effect of the phrase was to make the mortgagee's interest absolute at law, when those six months were passed; whereupon the parties come within the cognizance of equity, which rather forbids than allows a mortgagor to avail himself fully of his legal title, without its previously obtained consent. But assuming that, from the nature of this transferred interest—a mining share—a decree of foreclosure was not necessary; it did not follow that defendant could alienate that interest, without previous notice given to the plaintiff. And it appeared to his Honour, that the defendant had alienated this mining share without notice; for he confessed the want of notice, when he admitted that he told plaintiff, in February, 1846, that “he thought the plaintiff would be well pleased that he had sold the share.” And, had he not confessed the want of notice, he must have proved notice affirmatively. The defendant was bound, as between himself and plaintiff, to exercise his rights in a prudent and business-like manner (*per V. C. Knight Bruce, 2 Collyer, 465.*). He might have acted (as he thought) for the best, when he sold the share for 1857; but he could hardly be said to have acted in a business-like manner, or prudently to have exercised his rights, when, without notice to plaintiff, deprived him of his right. The defendant did not deny his obligation to account with the plaintiff; but he denied that the account should be taken on any price beyond what he had received from the sale of the share. The first and main question, which involved in it the right to sell the share, was, therefore, converted into a second question—what was to be taken as the value of the share? If the defendant had a right to sell, its value would be, of course, that which he received for it. But as his Honour could perceive no power of sale, nor any right in defendant to sell without notice, if he had the power, it might be that the sum received was not to be taken as the value which might have been received. Had defendant possessed another share in Wheal Trelawney, the Court might have been justified in considering such share as that which did belong to plaintiff, and in ordering its transfer to him after an account before the registrar. But it was admitted, and must be assumed from the pleadings, that the defendant had no other share in Wheal Trelawney. The Court could not order defendant to purchase a share (for a mining share was not like stock) and transfer it to plaintiff; as the defendant might, from inability to find a share on sale, involuntarily and unavoidably disobey the order. The suit, therefore, was one for an account simply; but to avoid inconvenience that might result from the fluctuating nature of the cause of suit, his Honour felt himself justified in adopting the suit, and in giving an opinion on the time at which the value of the share should be taken. And he apprehended that the value of the share must be taken to be the price at the time when plaintiff was ready and offered to do and receive what was just as between him and defendant; for, had defendant then done what, on his part, was just, and had paid the plaintiff the then value of the share, or allowed that value in account, neither party could then, nor after (whatever might have been the fluctuations in value), have justly complained. His Honour concluded, by decreeing that “the defendant must, therefore, account before the registrar with the plaintiff, and the value of the share in such account must be its full value in February, 1846. If that value be highest on the 3d February, 1846, that will be the value; for then, in my opinion, there is evidence that plaintiff was willing to account, though on the 18th day of the same month, he more formally expressed himself as being willing to account.”

*Cwm Avon Works—TESTIMONIAL OF RESPECT.*—Several clerks and agents met at the house of Mr. James Cross, Cwm Avon, on the 13th May, to present Mr. J. Hore, formerly of Truro and Redruth, who had been 12 years a cashier in the Cwm Avon Works, with a silver tea-pot, of the value of 20*l.*, as a small token of respect and esteem. It was presented by Mr. Hopkin, and Mr. S. Banford, and bears the following inscription:—“Presented by the clerks and agents of Cwm Avon Works, to Mr. John Hore, late cashier, as a small tribute of sincere esteem and regard.”

## REPEAL OF THE COPPER ORE DUTIES.

We noticed in the *Mining Journal* of the 13th May a letter to the Earl of Clarendon, as President of the Board of Trade, on the subject of the copper ore duties, by Sir CHARLES LEMON, Bart., and endeavoured to show the fallacy of its arguments, and the incorrect nature of the assertions introduced. We are happy to observe, that the committee appointed for the purpose of urging on the Government the necessity of their repeal, have at length published a reply, in which the whole fabric of the *sale* of protection is most completely demolished, and the policy of carrying out free trade principles to the utmost clearly established. We now proceed to lengthen extracts, without comment, leaving the unanswerable arguments used to carry conviction to the minds of our readers.

It is, in fact, a matter of satisfaction to observe, that Sir C. Lemon does not rest his defence of the copper ore duties on any ground of principle, nor does he even assert that their continuance is necessary for the protection of British mines; on the contrary, he says, in page 24 of his letter, ‘I do not conceal my impression that the fears of those who cling to the duty are somewhat exaggerated,’ and in another place, after stating that he conceives that their repeal would have a tendency to aggravate any ill fortune which might befall the working miner, in his present depressed position (a state of depression, we may remark, certainly not greater than that under which the working classes of most other parts of the kingdom labour at this period of scarcity), he adds, ‘I do not say that the repeal of the duty on copper ores will necessarily produce this effect.’ If, therefore, it is a master of so much doubt, even in the mind of the Member for West Cornwall, who announces that his sympathies are wholly for the mining population who form so large and influential a portion of his constituency, whether the repeal of the duties would have an injurious effect upon their interests, we submit that there is the less reason for refusing a concession, which we maintain is essential for the preservation of oportunities of trade.

“All that Sir C. Lemon's statement amounts to is, that the advocates for the repeal of the duties have exaggerated the extent of the evil which has arisen from their operation, and that, in our opinion, they ought to be removed until a case of greater injury has been made out. He appears to think it exceedingly unreasonable that we should complain until we have quite lost the trade, and other countries have possessed themselves of it; then, he thinks, we might have some grounds for asking Government to remove the restrictions, in order that we might attempt to regain it. If the trade had gone from us to the extent required to convince Sir C. Lemon that it was in danger, we should not attempt to waste the time of your lordship and of the Government, and permit us to add, our own also, by vain clamours after that which would be irrecoverable. Trade is not easily diverted from an accustomed channel into a new direction; but when the difficulties of change in its course have been overcome, and a new set of interests have been created, and made dependent upon it. In the new lands through which it has been made to flow, all past experience shows, that to force it back again into its original channel is an impracticable task. No stronger illustration of this need be adduced than the working of the last few duties, as shown in page 22 of the parliamentary return. There is abundant evidence in the documents which Sir C. Lemon has made the subject of his letter to your lordship, to show that since the imposition of the duty in 1842, this trade has begun to take a direction in which it was previously unknown, and that a sufficient portion of it has already been diverted to afford the strongest grounds for believing that if the moving cause is continued much longer in operation, the only trace of it which will be left to us will be the vacancy which its absence will occasion.”

“We have stated that Sir C. Lemon does not advance any grounds for the maintenance of the duties as essential for the protection of any British interest; except, indeed, we regard in this light his allusion to it as a desirable addition to the revenue, which, however, we look upon merely as an incentive for aid to the Chancellor of the Exchequer, who in a time of less pressing emergency would, we are sure, be quite beyond the reach of so paltry a consideration as that of a steadily decreasing revenue, now amounting to 50,000*l.* a year only, obtained by the sacrifice of important trading and manufacturing interests; whilst indirectly, by discouraging the export of our manufactures, and diminishing the employment of our people, a great and permanent loss of revenue will undoubtedly be occasioned. Neither does he attempt to dispute the injurious effect which the establishment in other countries of the smelting of the foreign copper ores would have upon the interests of the British miner; and it is unnecessary, therefore, to enlarge here upon a branch of the subject, with the bearings of which your lordship and the Government are already fully acquainted.

“We proceed, therefore, to apply ourselves to the objections raised by Sir C. Lemon to the various grounds on which our claim for the repeal of the duties is founded, which he has compiled in the shape of ‘pleas’ from the documents published by the order of the House of Commons.

“And, in the first place, we must remark that these pleas, as drawn up by Sir Charles Lemon, state the case of the advocates of the repeal of the duties in some points incorrectly, in others unfairly, and as a whole incompletely.

“We will not follow Sir C. Lemon's example, by imputing to him an intention wilfully to misrepresent the case which he assumes to refute, although we have a right to complain that the mode in which he has stated these ‘pleas,’ gives them the appearance of having been extracted verbatim from the documents in question, when, in fact, they are his own compilation, and in some cases from misconception, and in others from being deprived of their context, are made to convey a different meaning from that intended, and altogether express incompletely the views of the petitioners. It is difficult, however, to acquit him of an intention to misrepresent Messrs. Gemmill and Co., in the use which he has made of an extract from their letter to J. MacGregor, Esq., Secretary of the Board of Trade, of the 5th October, 1843, by quoting only a small portion of a sentence, omitting the context, and thereby giving to their words a meaning precisely the opposite of that which they were intended to convey. The following is the complete extract from Messrs. Gemmill's letter, marking by italics the portion which Sir C. Lemon has thought fit to omit:—

“From the above remarks, it would appear that the IMMEDIATE effects of the change have been exactly those contemplated by her Majesty's Government—viz., that it has, to a moderate extent, increased the trade of the British shipowners, while it has added largely to the profits of the British copper mine-owners, and been a source of some revenue to the British Government: but its ULTIMATE effects promise to be most disastrous, in so far as it will, almost certainly, deprive us of the whole of our trade in smelting foreign ores, transferring that trade to Chile, or to our manufacturing rivals in the United States, France, or Belgium,—and in so far as it is almost equally certain to throw out of employment two-thirds of the vessels now engaged in the carrying of ores,—and in so far as it cannot fail deeply to aggravate the feeling of hostility to Great Britain produced among foreigners by former restrictive measures of our Government, while it can neither permanently benefit our miners, nor long continue to be a source of revenue to our national treasury. It appears to us that the most proper course for the adoption of her Majesty's Government, will be to admit copper ore FREE OF DUTY, or at a duty merely nominal.”

“When it is remembered that Messrs. Gemmill's letter was written some time before the injurious operation of the duties was actually experienced in the shape of diminished imports, it is remarkable how correctly the predictions which they expressed have been verified.

“Sir C. Lemon has also altogether omitted to notice some of the most material grounds upon which the petitioners rested their case; but it will be sufficient that we confine ourselves for the present to the points which he raised.

“The first ‘plea’ which he sets up for domination is, ‘that copper ore is now the only raw material of manufacture subject to duty.’ This wording does not correctly convey the statement actually made, which was, ‘that copper ore is the only raw material imported for manufacture, which is subject to duty,’ a statement which is well known by the department over which your lordship presides to be substantially correct. Nevertheless, Sir C. Lemon imputes it as an intentional misstatement to the petitioners, ‘who,’ he says, ‘have preferred to shut their eyes, lest they should see timber and tallow staring them in the face.’ Timber and tallow!—what parallel is there between these articles and copper ore? In what sense are they raw materials imported for manufacture, we would ask Sir C. Lemon? They are imported for consumption, and not for manufacture, and we cannot conceive how so obvious a distinction could escape his notice, especially as in the next sentence he states that ‘they are extensively consumed in the Cornish mines;’ after this we are not surprised that he ‘never could understand why sugar was not a raw material.’ It is certainly quite as much in point as ‘timber and tallow.’ The unfairness which induces him to charge, upon such a foundation, ‘a misstatement’ on the petitioners, is well followed up in the next sentence, in which he calls on them to ‘give back to the miner the relief from the duties on timber which he then (previous to the tariff of 1842) enjoyed,’ as if the petitioners had either been the means of depriving the miner of the drawback formerly allowed on timber consumed for mining purposes, or had it in their power to restore that privilege.

“The second ‘plea’ is, that ‘in consequence of duties first imposed by the tariff of 1842, the trade in foreign copper ores to this country has been, and is likely further to be, materially diminished.’ Sir C. Lemon remarks theron, that ‘this statement represents a growing case of diminution, arising from a cause which commenced in 1842.’ And he gives a statement of the imports of metallic copper in ores, from 1838 to 1846, inclusive, from which he arrives at the extraordinary conclusion, that instead of a growing diminution, there has been a ‘vast increase,’ notwithstanding his own figures show that the import had diminished from 18,246 tons of copper in 1844, when it reached its ‘summit level,’ to 11,172 tons in 1845, and 10,878 tons in 1846.

“With respect to the diminution of import in consequence of the duties of 1842, until the session of 1837, when the law permitting the smelting of foreign copper ores in bond was passed, and for several years subsequently, no copper ores were imported into this country. The import of copper ores from Chile, in fact, may be said to have commenced with the year 1834, in which the import was 1671 tons of ore. There existed, however, from a remote period, a very considerable production of copper in Chile and Peru,—impure in quality, and requiring a subsequent refining process to be made available for manufacturing purposes. The results of the first shipments of copper ores to England was such as to encourage larger consignments: the import increased from 250 tons of ore in 1832, to 20,500 tons in 1843, in which year it reached its highest point.

“The change in the law in 1842 was understood by all parties at the time to be, as stated by Mr. Gladstone, in the House of Commons, on the 11th of July of that year, ‘an experiment,’ the results of which could not be foreseen; considerable disadvantages had been attendant upon the system of smelting in bond, and until the results of the shipments of ore made under the new system were experienced, there were no grounds for altering the course of the trade.

“Moreover, the intelligence of the change in the law did not reach Valparaiso before the close of 1842, and could not be generally known in the mining districts of Chile and Peru until some time in 1843. The South American miners had, therefore, no inducement to make any strong effort to change the current of their trade until the results of the shipments in 1843 were known, which they could not have been until 1844, and until that year the imports continued to increase. In 1844 the unfavourable results of the shipments under the duty became known; but, from the nature of the trade, no immediate change of moment could be made. In the first place, nearly all the Chilean miners were largely indebted to the British merchants, who had advanced them capital to work their mines, for which there were no means of payment but by deliveries of ore for shipment to England; and, even had not this inducement existed, they had not the means of giving on the instant a new direction to the trade. They had allowed many of their smelting furnaces to go to ruin, and had to rebuild them, and for this purpose they had to provide bricks and the other necessary materials; and they had ceased to accumulate stocks of wood for smelting. But there is abundance of evidence proving that extensive means for re-establishing smelting were taken in Chile in 1844, not only by the resumption of the old furnaces at the mines, but by the establishment of works upon the English principle, and with the aid of English workpeople, which works now produce a quality of copper fully equal to that made at Swansea, as stated by Mr. Munro, from the results of trials in his own works, at our recent interview with Lord John Russell. Another cause which for a time prevented any change in the current of the trade was, that England was the only available market for copper ores, as other countries could not buy them until they had established means of smelting. But as soon as other countries saw an opening, and when the ships of other countries found themselves deprived of the conveyance of the ores to England, in which they had, previously to the tariff of 1842, participated in common with British shipping, they began to erect smelting works, and as soon as their preparations were complete, they commenced purchasing the ores.

“In reference to the ores of Cuba, also, it is not difficult to explain why their import into this country did not at once diminish, on the contrary, even increase, until the evil influence of the duty began to show itself. The great majority of the copper mines of Cuba is held and worked by British capitalists. The management of these mines are in England, the capital with which they are worked is English, and their pro-

duce is naturally sent to England, in return for the money advanced. It would only be under circumstances of the most extreme pressure that the current of this trade could be diverted from England. But what does Sir C. Lemon himself show? Why, that these Cuban mines, from having been prosperous and paying concerns, yearly increasing in their production, had arrived at such a state of depression, that the Cobre Mine alone had fallen off in production in 1846, as compared with the previous year, 7996 tons of ore, and 93,014*l.* in the value of its produce; whilst at their last meeting, the directors apologized for making no dividend, on the ground that the duty ran away with all their profits, to the amount of 13 or 15,000*l.* The Santiago Mine, the next in magnitude in the island, had fallen off in a still greater proportion, the decrease having been 3128 tons of ore, and 46,186*l.* in money. Sir C. Lemon says, that this depression is to be attributed to ‘the chances of mining,’ as if these chances were not affected by the payment of the duty, which in the year 1846 amounted to from 12 to 15,000*l.* on the diminished production of one mine. And we beg to remind your lordship, that the parties chiefly interested in these mines are British subjects—that they largely employ British manufacturers, and British labour—and that they are, therefore, fairly entitled to the consideration of the British Government.”

## STATEMENT OF THE WORKING OF THE COBRE COPPER MINES.

	Tons of copper ore.	£	s.	d.
Produce of the mines in 1842	20,145	0	0	0
... " "	20,214	16	0	0
... " "	23,396	4	0	0
... " "	17,468	11	0	0
... " "	15,291	9	0	0

[To be concluded in next week's *Mining Journal*.]

## The Miners' Manual, and Shareholders' Guide.

BY J. Y. WATSON, ESQ., F.G.S.

TRELEIGH CONSOLIDATED MINES, in the parish of Redruth, Cornwall; divided into 5000 shares—6*l.* per share paid up—market value, 4*l.*; conducted on the old scrip system. Directors in London, C. H. Ashley, Esq., G. Bowness Carr, Esq., G. Thomas, Esq.; secretary, Mr. W. Nicholson; London office, 57, Old Broad-street; manager in Cornwall, Capt. W. Richards, Redruth. The sett, which comprises two distinct mines, Christow and Good Fortune, is held on lease for 21 years, from Dec., 1845 (a new lease having been granted), at 1-16*l.</*

## Mining Correspondence.

## ENGLISH MINES.

BARRISTOWN.—The 18 fm. level east and west is worth about 18d. per fm.; a rise about 6 fm. behind this end has improved, worth from 18d. to 20d. per fm. The 12 fm. end west is worth about 12d. to 14d. per fm.; the slopes from this, to the 18 fm. level, perpendicular, are worth from 14d. to 16d. per fm.—the ends are also worth the same. The winze, sinking under the 18 fm. level, on middle lode, is looking rather better, the lode is very regular, with lead thinly disseminated through it, but small; the ground is precisely the same as over the level, very congenial to lead. We commence on Monday to sink another surface shaft, to communicate with the adit end east, which will enable us to hole this level in quicker time with Nangle's shaft, and the workings eastward. At Clon Mine, we have discovered nothing further of any importance.—THOMAS ANGUS; G. WHITE: May 28.

BEDFORD UNITED.—At Wheal Marquis, the lode in the sump winze now 4 fm. under the 80 fm. level, is 3½ ft. wide, and worth 18d. per fm.; there has been no lode taken down in this level east since last report. In the 70 fm. level east the lode is 18 in. wide, composed of spar, mundic, and ore. The lode in the 68 fm. level east is 18 in. wide, spar and mundic. At Liscombe, there is no alteration in the adit level east, or rise, in this level; the lode in the south engine-shaft is 3 ft. wide, still producing saving work; the lode in the adit level is 18 in. wide, composed of spar, mundic, and spots of ore in places. We weighed, at Morwelham, on Friday last, March ores, 118 tons 12 cwt., and sampled April ores, computed 118 tons.—J. PHILLIPS: June 1.

CALLINGTON.—In the 125 fm. level, both north and south, we are driving through ground of a promising description; the back will set at a moderate tribute. In the 112 fm. level south, the lode is 18 in. big, spotted with silver-lead ore; in the winze, sinking below this level, the lode has not been taken down. In the 100 fm. level north, the lode is 1 ft. big, intermixed with silver-lead ore; in the south end no lode has been taken down. In the 90 fm. level north, we are opening tribute ground; the south end has been suspended, the men being engaged sinking a winze in the bottom of this level, near the present one. The 80 fm. level north is also stopped for the time. At the north mine, in the 100 fm. level south, we are opening ground that will work at a low figure; the north end is driving through tribute ground. In the 90 fm. level south, the lode is 1 ft. big, composed of white iron, mundic, and lead—we expect to hole a winze upon this level, in the course of a week or ten days. In the 70 fm. level east, we are in the cross-course. In the 40 fm. level, the ground is favourable for driving; to the east of the cross-course, at Kelly Bray, the water is decreasing, the ground intermixed with branches, dropping into the lode, producing copper ores.—J. T. PHILLIPS: May 31.

COATLITH HILL LEAD MINES.—Within the past week, we have sunk A shaft down about 1 fm., and the vein is considerably enlarged since my last report, with a great deal more ore in it; the vein is still principally composed of a strong rider of good ore and mineral clay, with very kindly prospects. I was into the level on Saturday, and found a large quantity of stuff had fallen down into it from the back and sides; but, as soon as we get that cleared, we shall be able to commence driving towards A shaft, and, in my next, I hope to give more particulars.—W. PAULL: Alston Moor, Cumberland.

CUBERT SILVER LEAD.—We have just now concluded the pay for April, and the public setting for June—the particulars of the latter you have, as usual, forwarded you by this post. We have commenced sinking the engine-shaft, and have sunk 4 ft. below the 35 fm. level. In the 35 fm. level, going east, the lode is large, and exceedingly wet (2 to 3 ft. wide), composed of spar, mundic, and saving work for lead—a very promising level; going west the lode is about 18 in. wide, and grey throughout—kindly. In the 25 fm. level west the lode is 1 ft. wide, soft spar, mundic, and lead; going east, in this level, the lode is 2 ft. wide, yielding some good saving work. In the 15 fm. level east the lode is 2 ft. wide, gossan, with stones of lead. We have set today 11 pitches employing 30 men, on tribute, varying from 1d. 9s. to 6d. per ton.—RICHARD ROWE: May 28.

CWM SERON MINE.—The 60 fm. level west has ore 1 ton 10 cwt. to a fm.; the 60 fm. east has 15 cwt. to a fm., with 40 ozs. of silver to the ton of lead, and 70 per cent. of lead to the ton of ore. This mine, if largely extended, would afford a good return; the vein increases as the mine goes down, and looks promising for a good mine in depth.—J. VIVIAN: Cardigan, June 1.

DEVON AND COURtenay CONSOLS.—In the absence of Capt. Job occasioned by an alarming illness, I beg to send you a report of the present operations of the mine. We have cut a lode in the 80 fm. level cross-cut, in driving north 9 fms. 4 ft. from the engine-shaft, the underlay of which is 14 in. per fm. south, and is of a very promising character—3 ft. wide, composed of spar, peach, mundic, and copper ore, with a flookan 3 in. in width, on the north wall of it; we are now driving west on the course of the lode. In the deep adit on the south lode, we are still driving north on the cross-course, but as yet we have been unable to meet with the lode. There is a considerable improvement in the adit on the north lode since last reported; the lode is 3 ft. wide, composed of spar, flookan, lead and copper ore.—E. NORTHEY: June 1.

DEAN PRIOR AND BUCKFASTLEIGH.—In the 30 fm. level west, the south part of the lode is composed of a branch of soft spar, near the south or hanging wall. The 40 end is suspended for the present, I have put the men to open on the ore part of the lode, east and west of the winze; in stopping in the bottom of the 40, the ore part of the lode is about 16 in. big, saving work. In taking down the lode in the 50 fm. level, I find the lode to be somewhat improved, 20 in. big, good saving work; this is the south part, being of a promising character to the west of the slide course.—H. CHOAKE: June 1.

DRAKE WALLS.—Since my last report, our mine has much improved, and the prospects are cheering. The 40 fm. level, under the arch, east of engine-shaft, with bottom and top slopes, are producing good work. The 50 fm. level, east and west of machine shaft, with slopes in back, are also producing very good work. The 38 fm. level, under the arch, east of machine-shaft, is worth 16d. per cubic fathom at present; the slopes, behind this end, about 3 fms., are also producing good work; the slopes at footway shaft are producing good work. We shall exceed 20 tons of tin for the last eight weeks, and shall sample it either the 5th or 7th of June next; and, from present prospects, I believe we shall sample considerably more the next two months. The new crusher is at work, and answers the purpose admirably.—R. WILLIAMS.

EAST CROWNDALE.—The sumpmen have been engaged the past week in furnishing the plat, dividing the shaft, &c., which, I am glad to say, is in a very forward state; we are now going to put in bearers and cistern, and fix new lifts; the shaft on the north lode, at Rix Hill, is harder than it has hitherto been—the lode, having increased in size, is now upwards of 2 ft. wide, composed of spar, peach, mundic, and good spots of tin; the ground in the adit level, towards the Rix Hill lodes, is rather harder than it has been. We have cut a branch, underlaying south, which is letting down water, and indicates that we are not far from a lode still north of the one our shaft is sinking on. We have seen a lode at the surface, between the two lodes previously seen, which contains excellent work for tin, and will, no doubt, make a course for tin where these lodes concentrate, which will be about the depth our adit will come.—S. PAULL: May 29.

EAST TAMAR CONSOLS.—At Whitson, the men in Hitchins's shaft have commenced sinking under the 64 fm. level; the lode in the 64 fm. level north is 14 in. wide, work of a coarse quality; the lode in the 64 south is 18 in. wide, good work. The lode in the 60 fm. level north is 15 in. wide—flour-spar, mundic, and ore, saving work; the lode in the 60 south is 18 in. wide, a very kindly lode. The lode in the 54 north is still in shoddy ground; the lode in the 54 south is 20 in. wide—spar, spar, and silver-lead ore. The lode in the 46 south, from Gourd's shaft, is 2 ft. wide—flour-spar and ore, saving work. At Furzill, Harrison's shaft is 23 ft. under the 46 fm. level—the lode therein is 2 ft. wide, a very kindly lode; the lode in the 46 north is 20 in. wide, saving work; the lode in the 46 south is 2 ft. wide, work of a good quality. The lode in the 38 fm. level north is 15 in. wide—flour-spar and ore; the lode in the 38 fm. level south is 20 in. wide, producing good stones of ore. At Charlotte's, the shaft is advanced to the 11 fm. level—the level is driven north from the shaft 10 fms.; the lode therein is 2½ ft. wide, flour-spar and silver-lead ore—a very promising lode.—B. ROBINS: June 1.

GREAT MICHELL CONSOLS.—The engine-shaft is down below the 22 fm. level 12 fms. 2 ft., the lode in which is composed of spar, mundic, flint, and stones of ore. In the western winze, the lode is without important alteration, producing stones of grey, black, and yellow copper ore.—T. RICHARDS: June 1.

GUNNIS LAKE.—At Chilsworthy, the lode in Bailey's engine-shaft remains without alteration, 2 ft. wide, and producing good stones of ore. In the 12 fm. level west, we are driving north in the great cross-course; and in this level east we are still driving south.—W. RICHARDS: June 1.

HAWKMOOR.—The lode in the 15 fm. level, east of Hitchins's shaft, is upwards of 2½ ft. wide, producing good stones of ore.—P. RICHARDS: June 1.

HEIGNSTON DOWN CONSOLS.—The lode in the 20 fm. level, east of north shaft, is 2½ ft. wide, composed of peach, spar, and tin—very good work, and very promising; in the 20 fm. level west, there has been no lode taken down.—W. RICHARDS: June 1.

MOLMBUSH.—The diagonal shaft is sunk 5 fms. 8 ft. below the 120 fm. level, in which are five small branches, composed of spar, copper, and mundic, separated from each other at an average distance of 10 in., and nearly perpendicular. The lode in the 120 fm. level, west of the great cross-course, is 12 in. wide, composed of hard spar, mundic, and spots of ore; the lode in the 120 fm. level, east of Hitchins's shaft, on the north part, is 12 in. wide, composed of mundic, killas, and spots of ore. The lode in the 110 fm. level, east of Hitchins's shaft, on the south part, is 10 in. wide, composed of spar and stones of ore; the lode in the 110 fm. level south, on the lead lode, is for the present suspended, and all the men (six in number) put to rise above

the back of this level to make a communication with the 90 fm. level, for ventilation, and to lay open the ground—there is not a sufficient quantity of air to pursue both objects at one and the same time; the lode in the rise, above the back of this level, is 2 ft. wide, composed of spar and stones of lead, worth 6d. per fm.; the rise is 6 fms. 4 ft. above the back of the level when the communication is made; the 100 south will be resumed by six men as before. The lode in the 90 fm. level south is 2½ ft. wide, composed of spar, prian, flookan, and spots of lead; all the lode is saved, and will undergo the process of stamping. We weighed, at Calstock-Quay, on Friday last, April ores, 88 tons 3 cwt., and sampled May ore, computed 78 tons.—W. LEAN: May 28.

HILL.—Since my last report, we have cut another branch, or lode, in the 67 fm. level, west of Robins's shaft, which has a very kindly appearance, spotted throughout with mundic and copper. I stated in my last, that the branch we cut in this end had heaven Robins's lode; to the north this lode has also made its appearance, and is looking much better than I anticipated when first cut. Our taking-day was on Saturday last—price for driving, 6d. 5s. per fm. I have also set the plat to cut to the same pare of men that are driving the end—the plat to be made 10 ft. long, 9 ft. wide, and 7 ft. high, the price 3s.; and as soon as the plat is finished, I would recommend driving either at the bottom of the shaft or on the lode that we have lately cut back under Brown's shaft; I am of opinion that we should not drive many fathoms before we should relieve the water from Brown's shaft. The lode east at the 67 fm. level, is about 2½ ft. big, principally prian and spar—price for driving, 6d. 5s. per fm. The lode in the 42 fm. level is just the same as when I wrote last—price for driving, 6d. 10s. per fm. I am happy to inform you, that by clearing the attle, it has greatly relieved the bottom levels of the foul air.—JAMES SPRAGUE.

KIRKCUDBRIGHTSHIRE.—Having gone through our monthly setting for June, I beg herewith to hand you a list of prices and statement of our prospects. The lode in the end west, at the 40 fm. level, is 3 ft. wide, with a little lead, but on the whole poor—set to six men, at 5d. 5s. per fm.; the lode in the end east, on the counter, is 4 to 5 ft. wide, and is being impoverished by a horse of ground; the latter, however, is declining, and there are indications of an increase of ore under it—set this end to six men, at 5d. per fm.; the lode in the rise of the junction continues large as before, but not quite so productive, say worth 25d. per fm.—set this to six men, at 6d. per fm., to be carried 9 ft. long—this rise is now 2 fms. 4 ft. 2 in. above the back of the 30 fm. level. The lode in the 20 fm. level west is 4 ft. wide, producing 1 ton of lead per fm.—set to six men, at 5d. 15s. per fm.—we consider this end to be within a very few feet of the junction. The slopes west of shaft are not so good as last reported—set at 5s. per fm.; those east continue good (not taken at 1d. 12s. fd.). We have set six men to rise in roof of an old pitch, in back of the 20 fm. level, and six others to sink from surface over them, at 5d. per fm. in each place, to effect a better means of ventilation. We have about 7 fms. of ground to cut, which I trust will be done in a few days, and thus answer the purpose much required. The Mary is engaged to ship our ore on Tuesday next, at 14d. the run; computed about 35 tons.—J. BUZZO: May 29.

LANIVET CONSOLS.—In the 80 fm. level, west of Elizabeth shaft, we have come into the lode 2 fms., and are not through it; its general character is much as last reported, producing capel, spar, and good stones of yellow ore; in the 80 fm. level east, remains much as last reported; we hope to complete the diagonal shaft to the 80 fm. level by the end of June. In the 80 fm. level, east of Elizabeth shaft, the leader part of the lode is 1 ft. wide, producing saving work; we have commenced to sink a winze below this level, the lode, or leader part, is 2 ft. wide, a good grey lode.—H. WILLIAMS.

LEWIS.—I beg to inform you, that I think our present prospects are equally as cheering as ever they have been, more particularly in the 50, east of tin, on north lode, where we have a good lode 3½ ft. wide, worth 16d. per fm. for tin; and the 50 east, on south branch, a good end, worth 10d. per fm. for tin. The 40 east, on north lode, is also a good end, worth 8d. per fm. for tin. All other places are much the same as when last reported, as R. Hodgson, Esq., and Capt. Paull, were here yesterday, and they intend to see you in a very short period. I expect they will be able to give you a very satisfactory account respecting the above mines. I believe Mr. Hodgson is quite pleased with our proceedings, and with the prospects in general.—S. NOELL: May 29.

MENDIP HILLS.—The appearance of the lode in the 38 fm. level, south of Stainsby's shaft, continues much the same as it has been for several fathoms past, chiefly composed of white spar and flookan, intermixed with particles of lead; the ground is rather harder for driving than it has been; in the winze, sinking below the level, we are down 1 fm. 2 ft., where the lode continues in a disordered state, composed principally of quartz and limestone—ground favourable for sinking. Our operations in the slag department, during the past week, has been very favourable. The carpenters are still making launders as fast as possible—60 fms. of which are laid down.—F. C. HARPER: May 31.

SILVER VALLEY.—At the engine-shaft, the 50 fm. level, cut towards the tin lode, is driven 3 fms. 3 ft. 6 in., and the ground continues favourable. At the silver mines, the lode in the 30 fm. level west is still divided into two parts; the south or main branch has, in the past week, considerably improved in size and appearance—being now about 15 in. wide, and containing spots of silver-lead ore. The lode in the 20 end west is about 20 in. wide, composed of flookan, carbonate of iron, mundic, and friable quartz, with spots of rich silver lead ore, and has a very promising appearance indeed; the lode in the slopes, in the back of this level, is about 22 in. wide, producing some saving work. At Wheal Brothers, the deep adit we have now cleared and secured 98 fms. from the western whim-shaft, and can get in over the ruins as far as the end, which we expect is near Oak shaft.—L. RICHARDS: May 31.

SOUTH TAMAR UNITED.—The shaftmen have been engaged the past week in cutting ground for bearers and cistern, which work will be completed by to-morrow, when we shall fix our first lift, and drop our second lift to the 40 fm. level, if possible. The men in the adit level are clearing and securing the level very satisfactorily.—B. ROBINS: June 1.

SOUTH WHEAL TRELAWEY.—We have this day set the engine-shaft again to sink at 12d. per fm., to 9 men (extent for the month); to commence working on Monday morning early until late on Saturday nights; we calculate upon sinking upon 2 to 3 fms. a month. Sobeys lode, in the adit level south, is 2 ft. wide, composed of beautiful gossan, barytes, soft spar, and killas, with particles of mundic and lead; we have 5 fms. further to drive this level south to get opposite the cross-cut driven west from the shaft, and 3 fms. 5 ft. to drive west from the cross-cut, to intersect the lode, agreeable with the present direction of the latter, where the communication will be made; we have set the work to 6 men to perform—viz.: the cross-cut to drive west to intersect the lode, at 4d. 10s., and the adit level south, on the course of the lode, at 2d. 10s. per fm., which work will be accomplished next month; a large stream of water will then be taken up at the adit level, that we are now obliged to draw to surface. I would also beg to remark, our engineer is getting on with the work of the engine in a very satisfactory manner, having fixed in their respective places all the heavy work, such as the bob, cylinder, boiler, cistern, &c.; no doubt exists of the engine being all completed some considerable time ere we shall want to set her to work, for, after the communication is made in the adit level, the shaft men, we believe, will be able to sink 8 or 10 fms. below the adit with barrels, seeing nearly all the water we have at present to contend with is coming from, and a little above, that level.—W. LEAN: May 29.

TRELEIGH CONSOLS.—In the 110 fm. level, east of Christoe's, the lode is about 2 ft. wide, with stones of ore; it has a very promising appearance, but too near the cross-course to calculate on mineral wealth from the upper levels. In the rise, above the 100, east of ditto—this ground includes end and rise—the lode is 20 in. wide, worth 6d. per fm.; this will be holed in 12 or 14 days, should the ground prove favourable. In the winze, below the 90 east, the lode is 20 in. wide, but poor for ore, producing occasional stones of ore; Garden's shaft, below the 90, is very hard and wet; in the 90, west of ditto, the lode is 20 in. wide, but not much ore, but looking more promising to us than through the past week. In the 80, west of ditto, the lode is 3½ ft. wide, worth 12d. per fm.; in the 80, east of ditto—the driving includes rise and end—the lode is 2 ft. wide, worth 3d. per fm.; the lode in this is likely to improve. The winze, below the 70, east of Garden's (new), will be sank on the rise above the 80, at present it is worth about 5d. per fm.; the 70, west of Symons', is stoned in bottoms 7 fms.; the lode in this end is 4 ft. wide, capes, poor for ore. In the 60, west of ditto, the lode is about 2 ft. wide, worth 6d. per fm.—rather more promising. In the winze, below the 50 west, the lode is 2 ft. wide, worth 6d. per fm.; in the adit east, on Wheal Parent lode, the lode is 2½ ft. wide, producing good stones of ore, and shall save a part of it to dress; it has in the week rather improved.—W. LEAN: May 29.

UNITED HILLS.—In the 90 fm. level there has been nothing done for the past week, in consequence of the water being in. In the 80 fm. level, eastern end, the lode is 3½ ft. wide, worth 16d. per fm.; west of cross-cut the lode is 2 ft. wide, worth 10d. per fm. In the 70 fm. level the lode is 3 ft. wide, worth 9d. per fm. The 60 fm. level is suspended since August last; in the shallow adit the lode is 3 ft. wide, worth 6d. per fm. At Wheal Charles, in the 40 fm. level, the lode is 2½ ft. wide, worth 6d. per fm. At Wheal Sparrow, in the 40 fm. level, the lode is 6 ft. wide, worth 12d. per fm.; the lode in the winze is 6 ft. wide, worth 10d. per fm.—this winze is not looking so well as when last reported.

In the 20 fm. level no lode broken for the past week. The water has been in the 90 fm. level during the past week, in consequence of the boilers leaking, and putting down a new plunger pole. We hope to be in fork by tomorrow night, or Thursday morning.—T. TREVENEN; R. WILLIAMS: June 1.

WEST WHEAL JEWEL.—In the 115 fm. level east, on Wheal Jewel lode, lode 18 in. wide, worth 3d. per fm. In the winze, in the bottom of 100 east, on the same lode, lode 18 in. wide, composed of spar, mundic, and a little ore. In the 100 west, on the same lode, lode 9 in. wide, worth 3d. per fm. In the winze, in the bottom of the 85 west, on same lode, lode 2 ft. wide, the lode is

looking more promising for ore than when last reported. In the 70 west, on the same lode, lode not looking so well as when last reported, now worth 4d. per fm. In the 80, west of Quarry shaft, on Tolcarne tin lode, lode worth 10d. per fm. The winze, in the bottom of this level, is communicated to the 80 in the past week; the slopes, east of Quarry shaft, in the bottom of this level, are worth 25d. per fm. In the 12 west, on same lode, lode 18 in. wide, worth 9d. per fm. The 10 fm. level south is 2½ ft. wide, composed of spar, prian, flookan, and spots of lead; all the lode is saved, and will undergo the process of stamping. We weighed, at Calstock-Quay, on Friday last, April ores, 88 tons 3 cwt., and sampled May ore, computed 78 tons.—W. LEAN: May 29.

WEST WHEAL MARIA.—The lode in the eastern engine-shaft is without important alteration; it is about 5½ ft. wide, 18 in. of the north part is saving work, and ore of good quality; this lode is rather troublesome in breaking, as there are so many vugs in it, and pretty much water issuing out of them—so much so, that we cannot make that progress in sinking that we could wish. The western engine-shaft is down below the 54 fm. level 5½ fms.; the lode in this shaft is about 2½ ft. wide, composed principally of capel, spar, mundic, and a little ore; in the 54 fm. level, east of this shaft, the lode is about 2 ft. wide, with spots of ore in

NORTH WALES SILVER-LEAD, COPPER, AND GOLD MINING CO.  
TO THE EDITOR OF THE MINING JOURNAL.

Sir.—Observing in your valuable paper of last week a letter from "A Working Miner," who, methinks, understands the pen better than the pick, in which he sorely complains of the report of Capt. Absalom Francis on the mines possessed by the North Wales Mining Company, I am inclined to try my hand at correspondence, if you will kindly give my letter insertion, knowing, as I do, some little of the district. The "Working Miner" deals so generally with the subject, that it is difficult to catch him on any one particular point; however, I will leave Mr. A. F. to answer for himself, while I confine myself to the practical details and to the imaginative ideas of a "Working Miner."

Having expatiated on the prospects, according to his opinion, of Clogau and Vigra, he asks "for what purpose machinery will be necessary, when the present workings at Vigra are on the summit of a hill, upwards of 800 feet above the level of the water, and Clogau 1200 feet, when adit levels might be driven for less expense, and at the same time proving the lodes much better?" Perhaps, Sir, your correspondent would, having made so accurate (?) a survey as to the height of the workings, kindly condescend to state what would be the distance required to drive a cross-cut to take any lode in Clogau or Vigra setts. I think he would be somewhat right, if I may anticipate his reply, in saying at the former a distance of something like 7920 feet would have to be driven—and, allowing the cost of ground to be 8d. per fathom, this would be attended with a cost of £960, exclusive of shafts for ventilation; and as it might be fairly estimated that six fathoms could be driven per month, it will be seen, that the time consumed would be, in round numbers, some 16 or 18 years. I, therefore, can well understand, if the "Working Miner" be one of the consulting agents, whose reports appear to have been adopted, and on which is founded the assumed application of so vast a capital, that really it will be required, and hence that Capt. A. Francis was in error in arriving at the conclusion that 10,000d. would be sufficient. Why, this sum could alone be well applied to salaries and agencies in the time. I will now, with your permission, say a word or two as to the former workings—having been engaged therein. Your correspondent says, they are but surface workings, being only 25 or 27 fathoms deep. Will he be kind enough to say, where the Clogau lode is in going west, or where the Vigra lode is in depth? The one is, I believe, lost, and the other, to say the least, is missing. He sadly complains of the bad management of working the mines by the past adventurers. Now, I have no hesitation in saying, that the body of adventurers who worked the mine some few years since, were most spirited; that the operations were conducted under the skilful and able management and direction of Capts. W. Gregor, Samuel Seccombe, Theophilus Mitchell, and Faull; and, as your correspondent has been connected with the district 20 years, he possibly was in some one or other core, and can tell us how the lode looked when the "bal" was "knocked?" "A little knowledge is a dangerous thing;" and, I fear, without your correspondent acquires more, he had better forget that which he has obtained, or, at least, apply it to a better purpose than that of attempting to mislead.

London, June 1.

## A THEORETICAL NOVICE.

## WHEAL ELIZABETH, LATE WHEAL CRESE.

TO THE EDITOR OF THE MINING JOURNAL.

Sir.—I have often been asked the question, "When is Wheal Elizabeth again going to work?" In reply to which I beg to state, that Mr. Edgcumbe, of Tavistock, the purser, has been frequently applied to, both by letter and verbal application, by shareholders of considerable influence, but all to no purpose; he seems callous to every application—his only reply being, that as soon as the back calls (about 50d.) are paid, he will call a meeting. It appears Mr. E. stopped the mine on his own responsibility, and without any authority from the shareholders, while a more promising sett does not exist in the neighbourhood. Really, Mr. Editor, some steps should be taken to compel Mr. Edgcumbe, either to give up the pursership, or at once to call a meeting of adventurers, and give some explanation. If this is not done, and that quickly too, I shall again call your attention to it.—A LONDON BROKER: London, June 2.

## CANDONGA MINING COMPANY.

Sir.—Can you give me any information respecting the above-named company? There is, or ought to be, a considerable balance in hand; and, bearing in mind what transpired at the last meeting of proprietors, I am at a loss to understand why the concern has not been wound up, and the balance returned. If not in your power to afford the required information, the insertion of this in your Journal, or a remark from you to the same purport, may perhaps lead to an explanation.—A CLAIMANT: London, June 2.

HARROWBROW OLD MINE.—The company held their meeting at Plymouth, on Tuesday, the 1st June, when the following report of the committee was read:—Since the last report, two small sales of tin have taken place, amounting to 154L 18s. Another parcel will be sold on Friday next, and there remains on the floors as much as can be passed through the burning-house in the next three months. The burning house has been found altogether too small for the work it has to do, and it has not been deemed expedient to enlarge or erect another on this site, as proceedings at law were threatened against us from alleged injury to vegetation adjacent to it. From communications with and experiments made by Mr. Oxland, operative chemist, we find a second engine will not be necessary, as the present will be found sufficient to pump the mine and drive 36 head of stamp at least, which will, by his process of dressing, be equal to a very large amount of work. Your committee have met Mr. West on the mine, who there laid out necessary plans for the engine and floors; the specifications are daily expected from him. From the continued unproductiveness of the copper lodes, and a second accident to the piston-rod, which stopped the engine, and from reports of our own and other mine agents, your committee thought it desirable to suspend operations at this part of the mine, and now recommend the removal of all your plant to the Goodluck tin lode. They have availed themselves, on the recommendation of the agents, of an opportunity of obtaining at a cost of about 170L, the Harrowbrow Consols sett and materials. This step they were induced to take in order to secure a large tract of land on the north, known as Mount Pleasant, and by this purchase your sett is considerably extended to the north and east, and three tin lodes of great promise added to the sett.—From the statement of accounts, it appeared that the balance from last account was 92L 8s. 4d.; three months' cost (March, April, and May), 1282L 1s. 1d.—together, 1374L 9s. 5d. Creditor, by calls received, 736L; sales of tin, 154L 18s.; ditto materials, 238L 4s.=1128L 18s., leaving balance against the mine of 245L 11s. 5d.—A report from Capt. Paul (the agent) was also read. After describing the various details of the workings, it stated, that 6 tons of tin were ready for market, and 5 tons in course of preparation, some portions of which had been sold at prices which show the tin to be of good quality; and Capt. Paul concluded by stating, that he had every reason to expect a good mine, when in proper course of working.—The shareholders agreed to receive and adopt the reports of the committee and captain; passed Mr. Carne's (the purser's) accounts; ordered a call of 2L a share; voted thanks to the committee; resolved on the removal of the engine and plant to Goodluck; and voted thanks to the chairman, after which they broke up.

EAST CARADON.—At a meeting of adventurers, held at Webb's Hotel, Liskeard, on Monday, the 31st May,—RICHARD FORSTER, Esq., in the chair,—the accounts for the last nine months, leaving a balance to purser (W. Forster, Esq.), were examined and allowed, and a call of 2L per share made, for the further prosecution of the mine.—The following report was read to the meeting:—A whin is in the course of erection, and the engine or whin-shaft sunk, and rose on to the extent of 81 fms., having 6 fms. more to sink to hole to the back of the level, the men will then goad air to resume their workings in the whin under the adit, and to drive on the adit cross-cut—in both of which, as well as in many parts of the shaft, good leaders of grey, black, and yellow ore have been already discovered, and from which, by and-bye, great returns are anticipated. The adventurers are now in the highest spirits, there not being the slightest doubt but they will ultimately, and in all probability, very quickly prove to be equal, if not superior, to her neighbour, the adjoining mine, and on the lodes of the famous South Caradon, from which such large profits have been returned; 4704L—viz.: 42L per 112th share—have been already expended, and we can boast that the sum of 4L only out of that amount remains unpaid.

PENZANCE CONSOLS.—The first account of this mine was held at the Wellington Inn, St. Just, on Monday, the 31st May, when the accounts were examined and passed to end of April, showing a balance in hand in favour of adventurers of 92L; there was also about 30L worth of tin for sale on the mine. This sett has been worked unsuccessfully for some time past by a former company, under the name of Gear Brane, but were compelled to stop the working, in consequence of not having steam-power to draw the water. The mine is now being worked by a spirited company, who have erected a steam-engine, and gone to a considerable expense for the effectual prosecution of the sett; after sinking about 5 fms. they cut a lode of tin, which has continued to improve every week, and is now worth about 40L per fm.—the tin is of the richest description. This mine is situated in the parish of Sancred, and promises fair to be a good speculation from the present favourable appearances.

PHOENIX MINES (near Liskeard).—A special meeting of shareholders was held on the 20th May, when it was resolved, that for the purpose of erecting the steam machinery, necessary to bring the mine forthwith into a profitable state of working, as recommended in the report of Capt. William Lean, as also by the resident agent (Capt. Samuel Seccombe), a few additional shares shall be issued, applications for which, or for further information, may be made.—The report of Capt. William Lean, who had been requested to inspect the mine, was also read, in which he recommended the immediate alteration of the machinery, for the purpose of bringing the mine into full and effective operation.

WHEAL GILL.—A meeting of shareholders was held at the mine, on the 20th ult.—W. Gloucester, Esq., in the chair.—The working of the mine was directed to be discontinued, the mine and materials to be sold, and the affairs of the company wound up without delay: Mr. W. Murray, jun., to act as auctioneer, and Mr. E. H. Pedler, of Liskeard, as solicitor.

## X CURRENCY CREEK SPECIAL SURVEY, SOUTH AUSTRALIA.

A meeting of landed proprietors in this speculation, was held at the London Tavern, on Monday last, for the purpose of hearing a report received from the colony, of the discovery of copper ore in the district, and to adopt measures in consequence thereof.—The meeting was numerously attended.

HANANEL DE CASTRO, Esq., was called to the chair.

The CHAIRMAN stated, that he, together with Mr. Friend, Mr. Gray, and Mr. Thompson, original shareholders, had thought it right to call this meeting to lay before them information they had received from their agent, Mr. R. W. Beddoe, respecting the discovery of copper ore in September and December last, on the survey. In the first place, the chairman thought it right to remind the meeting, that this society, called the Currency Creek Special Survey, was commenced under a Government grant of 5000 acres, in March, 1839, and the association dissolved on 23d June, 1841. At that period, the shareholders received a land grant for 40 rural, and 5 town acres for each subscribed share, with the understanding, that in future each shareholder would represent his own interest in the colony, and was so registered accordingly. The balance of money remaining at that period, after paying all expenses, together with some appropriate land, was, by resolution given over to them, to appropriate at their discretion, for the benefit of the survey in common, and the association was then dissolved. The confidence reposed in himself and colleagues at that period had been faithfully fulfilled, and by appointing Mr. Beddoe to reside on the survey for three years, had led to their re-assembling this day, under favourable circumstances, as the report, he should have the honour to read them would confirm. The question that now would come before them, was whether it was their intention, on the information received, to re-unite themselves into an association, as before, reminding them they met to-day as individual and separate landed proprietors; nevertheless, his own opinion was, that unless the whole survey could be again brought under one management, he thought the apparent advantages held out could not be realised.

The CHAIRMAN then read the following letter from Mr. R. W. Beddoe, and the report of Mr. Finke, respecting this discovery on their lands:

*Currency Creek Township, South Australia, Dec. 16, 1846.*

DEAR SIR.—In the following report upon the New Mine, at Currency Creek, I take the liberty of addressing you, from your long connection with the special survey, in the heart of which the mine is situated, from your uniform kindness and frankness in giving me advice in my general agency, and from the circumstance of your having by far the largest amount of landed property in the district, under your control, which is represented by one individual. I have, first, to request, that you will do me the favour to communicate with other gentlemen, acting as agents for land here, or who may be proprietors of the soil themselves, in order that, if agreeable to the wishes of yourself and others, a preliminary meeting of persons concerned might be held; at which an attempt might be made to combine, for the purpose of a further investigation into the character and extent of the vein of copper recently discovered in this township. With respect to the discovery itself: chance having directed the observation of an individual residing here to a blue line, under the water, at the head of the Salt Back-water, forming the lower division of Currency Creek, he raised from the spot a piece of stone—of a soft slate nature—containing the deposit, which, by its colour, had attracted his attention. This being submitted to me, in order that steps might be taken for its examination, I took it to Adelaide, and obtained information from a practical mineral of its true character—verifying my own belief, that it was a fair specimen of blue carbonaceous copper—or what mineralogists, I hear, term "limestone."

I immediately determined upon the purchase of a knowledge of the locality whence the specimens were taken, on behalf of the trustees of the survey, in order to prevent a possible monopoly by individuals; and also to ensure, by due and properly timed publicity, the full benefit to the whole body of the proprietors of the survey. I arranged the same with other gentlemen, acting as agents for land here, or who may be proprietors of the soil themselves, in order that, if agreeable to the wishes of yourself and others, a preliminary meeting of persons concerned might be held; at which an attempt might be made to combine, for the purpose of a further investigation into the character and extent of the vein of copper recently discovered in this township. With respect to the discovery itself: chance having directed the observation of an individual residing here to a blue line, under the water, at the head of the Salt Back-water, forming the lower division of Currency Creek, he raised from the spot a piece of stone—of a soft slate nature—containing the deposit, which, by its colour, had attracted his attention. This being submitted to me, in order that steps might be taken for its examination, I took it to Adelaide, and obtained information from a practical mineral of its true character—verifying my own belief, that it was a fair specimen of blue carbonaceous copper—or what mineralogists, I hear, term "limestone."

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as to profit, he had no doubt she would prove a very lasting one; and Capt. Paul showed that, although the ground in Tincroft was hard, and the shafts diagonal on the underlay of the lodes, which made the mine expensive to work—the mine was worked under the average expense of the neighbourhood.

The CHAIRMAN explained that the entire outlay on the mine had been £2,000, and that they had returned £20,000, in dividends; a hope was also expressed, that at the next meeting they should be in a condition to pay another dividend. Thanks were then severally voted to Capt. Paul, the chairman, directors, and auditors, and the meeting separated.

#### DARTMOOR CONSOLS MINING COMPANY.

A meeting of shareholders, interested in the above undertaking, was held on the 20th May, at the offices of the company, 58, Lombard-street, when a deputation was formed, with instructions to proceed to the mines forthwith, and report thereon, for the satisfaction of the shareholders generally. This having been done, we have now the pleasure of furnishing the result of their important mission, which we have no doubt will be read with equal interest and gratification.

Having been requested, by several large holders of shares in this company, to visit the mine, and inform them what prospect of remuneration it offers, we accordingly did so on the 20th inst., and was highly gratified to find the works progressing in a very favourable and business-like manner. We, therefore, think it right to send you this report, that you may, if you think proper, publish it for the satisfaction of the general body of shareholders. We left Shepton in the morning, accompanied by Capt. J. Floyd, and other mining agents, for the purpose of thoroughly inspecting the mine. The distance from Shepton is about two miles, on a gradual and pleasing ascent. Upon arriving at the boundary of the mine, we first took notice of a very fine stream of water, used for the purpose of working the numerous water-wheels and necessary machinery used in mining—this stream proceeds from the top of the hill in which the mine is situated, and, therefore, has a good fall upon the wheels. We then proceeded to examine the buildings and outbuildings, which are numerous, and the expense of putting the same in full repair will not be great; the smelting-house, which is 60 ft. long, and 24 ft. wide, built of excellent granite, can be made fit for use at a very trifling cost, and from the inquiries we made, I find it quite capable of smelting all the tin raised in the county of Devon—this alone will be a source of great profit, and highly remunerative to the shareholders. If properly managed, as we find there are many rising mines in the neighbourhood, raising large quantities of tin, which, in order to get smelted, the owners are now obliged to send by land to Plymouth, and from thence it is shipped to Truro. The smelting-house on Dartmoor will save this heavy expense, on account of these mines being within a mile or two of it. Fuel may be obtained to an unlimited extent from the peat and turf on the Moor, this company being allowed to raise what they require at no charge whatever; coal can be brought by the Dartmoor Railway from Plymouth, within a mile or two of the mine, at a trifling cost for carriage, the railway being solely employed in running granite from Dartmoor to Plymouth—the expense, therefore, of back carriage is very small. We took a round of the bounds of the mine, which in extent are certainly very great, and we should consider it would be many years before the mineral wealth would be exhausted. If the workings of the ancients are any criterion to go by, Dartmoor at one time must have been one of the greatest mineral districts in the two counties, as there is scarcely a valley for miles around that has not been stremmed for tin. We have no doubt whatever, from the indications upon the surface of this mine, that the returns must have been enormous, and it appears that no expense was spared in putting everything in the most complete order.

From the main lode, we were assured by several old miners, there have been thousands of pounds' worth of tin raised. We cut out some portions of it, which proved to be very fine-grained tin. We have during our visit, and personal inspection of several tin and other mines in Devon and Cornwall, never seen anything to compare with it; and we have no doubt the adventurers will find this a highly remunerative speculation, not only in the smelting department, but also in the mining. After having made a scrupulous examination of the surface, we, accompanied by Capt. T. Gregory, Capt. J. Floyd, and several miners working at the time, proceeded underground, commencing at the shallow adit, in which is running a stream of water from the lodes; the adit appears in a good sound condition; we explored it upwards of 300 fms., and found the strata to consist of decomposed granite. We saw several cross-courses in our passage through the adits, and the dropping of the fibres indicates that the lode will prove richer as the depth is increased. We examined carefully the different arches of ore (which are very numerous in the adits), they were rich with tin.

We noticed the different places where the old company had stopped away the backs. There still remains a large quantity of ore, which may be at once sent to the stamps, which was left by the former company as waste, on account of the low price of tin—it being at that time, we were informed, only 40/- per ton—they only worked up the best ore, and threw the other aside; but, at the present price of tin, this ore will pay well for stamping, and will be prepared as soon as the stamps are erected, and the wheels repaired. The smelting-house is only a few yards from the main lode—so that tin may be quickly prepared for market, and the company will at once get a ready market for the superiority of the tin here produced.

We then inspected the shafts—the whole of which appeared in good repair, the sides firm, and all quite dry, except one; we sounded and found the mine was only 10 fms. under the adit level, and this, compared with other mines, is extremely shallow; and when we look to the large returns that have already been made—upwards of £30,000—what may not be expected from such a mine, when sunk 20 or 30 fms. deeper, and the lode in a more settled strata? It is a question whether this mine will not give copper when the depth is increased, as great numbers of tin mines do. We must next draw your attention to the middle or north lodes of the sett, and which have never been worked upon, except by the old men, or ancients, and their works are considerable—so that there can be little doubt but they may have found them profitable. These lodes can be crossed at the deep adit without much expense; and it is the opinion of those who have worked in the mine many years, that they will prove very rich in tin. The present deep adit will thoroughly drain them of water, and they may be worked at a very small expense, as the ground is soft and easily worked; the cost of driving would be from 22/- to 3/- per fm. The tinstuff raised from some parts of this mine, I was informed by the party who had smelted it, produced 15/- tons of black tin out of 20 tons of ore being at the rate of 75 per cent. The lodes are now laid open; therefore, as soon as the water is forked, the mine will be immediately placed in a paying position. Upon the whole, we were highly gratified with our visit; and we have little doubt but the shareholders will find this to prove a highly remunerative investment, and fully realise their expectations of a good dividend-paying mine. Capt. Gregory, the agent of the company, was extremely civil and obliging in giving us and Capt. Floyd every information in his power—notthing was held back. I think, under his spirited management, with the superintendence of Capt. Sparge, the works will progress with speed, and in a workman-like manner. We have also to tender our thanks to the secretary for his courteous conduct in permitting us to inspect the mine—indeed, he seems to wish parties interested in the shares to see the mine and judge for themselves, feeling confident that, by so doing, they will feel quite satisfied the concern will pay well. We should strongly advise those shareholders who have time to spare, to visit the mine, and see for themselves; and we have not the slightest hesitation in stating, they will be highly gratified with the prospect it presents to view. A trip to Newton, by rail, brings the mine within sight, and from Newton, the scenery is truly romantic—the road on each side being skirted with lofty hills; the sides covered with orchards, plantations, &c., presenting a scene of grandeur from the beginning to the end of the journey. The tors on Dartmoor are bold and grand in appearance—pile after pile of granite is heaped up until they are lost amidst the clouds. The rivers abounding with Dartmoor trout—the fishermen being at liberty to use his rod without any restraint; and last, though not least, the inhabitants around are famous for that hospitality which has been so often ascribed to the county of Devon. Upon the completion of the South Devon Railway, the distance from the nearest station to the mine will not exceed seven miles.

(Signed) E. O. EVANS, on behalf of the deputation.

**EXMOOR WHEAL ELIZA.**—A special meeting of adventurers was held at the mine, on Tuesday, the 1st inst.—RICHARD SLEMAN, Esq., in the chair.—The auditors reported that they had examined the accounts, and found them correct; that great credit was due to the purser; that no arrear of calls existed from the commencement of the mine, in August, 1845, to this date; that the balance against the adventurers is 70/- 17s. 1d., due to the bank; the assets (exclusive of buildings) in machinery, according to Capt. Edward's valuation, £522. 5s.—The accounts having been examined and passed, the following report from Capt. Joseph Pryor was read:—I beg to say we began to sink the engine-shaft on the 17th May, since which time we have sunk 1 fm. 0 ft. 11 in. through a large and kindly lode, composed of gossan, yellow and green copper ore, mastic and quartz, and white iron; the shaft is at the present time 4 fms. 5 ft. 6 in. below the adit, and the underlay of the lode is south, having a large lode also to the north; the south lode will soon be out of the shaft in the east end, as we proceed sinking; the underlay of the lode is about 18 in. in the fm.; if we put our shaft down to a 12 fm. level from the bottom of the adit, we shall have to drive a cross-cut about 12 ft. south from the shaft to cut the south lode; the time I calculate to sink the shaft and drive the cross-cut is about four months, with six miners and two tackle men; in the meantime we are sinking the shaft. I should feel much inclined to coetan to the east, for that part of the lode we meet with in the lobby to the engine-wheel.—It was resolved, that the captain's report be acted on, and a call of 1/- per share made.

In another column we have given the particulars of a very important discovery just made in the Currency Creek special survey, in South Australia, where copper ore of a very valuable description has been discovered. One very important feature in the position of this survey is, that it is only seven miles from the coast, whilst the Burra Burra Mines, which are so very valuable, are situated 96 miles from the port of Adelaide. This feature will, of course, give to those interested in the Currency Creek survey a decided advantage, from the diminished cost of transit—the ore being, at the same time, quite as valuable as that discovered on Burra Burra estate.

**OLD DELABOLE SLATE COMPANY.**—This company held their half-yearly meeting on the 10th May, at the company's office, in Plymouth, when it appeared that the funds of the company warranted a dividend of 5/- per cent. for the last half year, being at the rate of 10/- per cent. per annum, with a prospect of a very great increase. John Sheppard, and E. Melluish, Esqrs., returning directors, were re-elected.

**WORKINGTON COLLIERY.**—We are glad to learn that Mr. Penrice has succeeded in finding the main seam at Jackson's Pit, at a depth of about 23 fms. from the surface; this seam, which is 10 ft. 6 in. in thickness, is said to be of most excellent quality. The undeviating success which has, at all times, succeeded every speculation made by this gentleman, is such, as cannot fail in raising him to an eminent position amongst his brethren of the same profession, as well as of men of science generally; and it is not to much to say, being generally, if not universally admitted, that the present and prospective advantages of the ports of Workington and Harrington, are fairly attributable to the skill and untiring industry of Mr. Penrice, under whose able management the coal trade in that locality, which had dwindled down into comparative insignificance, is now placed on a permanent basis, which, while it must be very remunerative to the lord of the manor, and a source of satisfaction to Mr. Penrice, is of incalculable benefit to the shipping, trading, and operative part of the Workington community.—*Whitewhaven Herald.*

**TREASURE MINE.**—This mine is situated at Mullion, about four miles north-east of the Lizard Point, and was formerly worked to a considerable extent, but at only a shallow level. The workings have been lately resumed; and, having had the means afforded us of inspecting the plans and sections, with the reports received from the agents appointed to examine the mine, as also the resident captain, we avail ourselves of the opportunity of stating its present position, and directing attention to the very splendid slabs of virgin copper at the office of the company, one of which is 5 ft. by 2 ft. 9 in., and weighs 371 lbs., giving a produce of 90 to 95 per cent. We do not find at the time of the former workings that they carried below 20 fms. from surface, where an adit or cross-cut has been driven 320 fms. in length, which has been cleared up, but no lode discovered, it being assumed to be to the east, from the nature of the discoveries lately made. There is also a shallow adit, or level, 8 fms., which carries off the water from the present workings, such being the extent to which the latter have been carried in depth. The lode, which runs north and south, has an underlay east, about 35°, and is from 3 to 3½ ft. big, carrying with it slabs of metallic copper on the foot and hanging walls, with branches or strings of horseflesh ore, malachite, or carbonate, grey and yellow ore, and the several varieties, being, perhaps, the choicest collection in the metropolis of copper ores, both as regards richness and the size of the stones or specimens—one, as we have already observed, weighing 371 lbs.; and another, which was taken from the lode, being 476 lbs. of virgin or malleable copper. The present workings are distinct from those of the old men, and a shaft has been run down, 8 fms. in depth, on the course of the lode, which is represented to be regular, and 20 fms. have been driven to prove it—the water preventing further sinking until a communication is made with the lower workings, so as to carry off the water down to the 20 fm. cross-cut, or adit. In the meantime it is proposed to sink a shaft, so as to take the lode in depth, which, however, can only be considered as a trial shaft, inasmuch as it is not intended to put down an engine-shaft until the lode is seen further in depth, and the point ascertained of its position. The extent of the sett is 800 fms. on the course of the lodes, and 600 fms. east and west, and is held at 1-15th dues. There is a peculiarity respecting the lode in which the discovery has been made—that of its being nearly north and south; and the rich deposit, at the point of intersection, is remarkable, on which we may have occasion to offer some further remarks. The mine may be said to be in private hands, the number of adventurers being limited; and the Cost-book System is, we understand, strictly adhered to, and the accounts rendered monthly, while meetings of the committee are held weekly, when the reports from the agents at the mine are submitted.

A company is, we understand, in course of formation, for working the extensive collieries of Tonmawr, situated near Neath, and immediately adjacent to the ports of Britton Ferry and Swansea. The collieries are in active working, and the outlay expended on bringing them into their present state, with construction of railway, erection of houses, wharfs, &c., is set down at nearly £100,000/—70,000/- of which was outlaid on the railway alone, which is 7½ miles in length. The surface belonging to the mineral property consists of 483 acres of arable, pasture, and mountain land, and 150 acres plantation. The collieries are in good working condition, and yield from 140 to 150 tons of coal per acre, which quantity, it is stated, may be largely increased. The coal is of a bituminous nature, and is represented as being a strong durable steam-engine coal—there being a regular and steady demand, which promises to be greatly increased by the establishment of several large foundries, and the completion of the South Wales and Vale of Neath Railways. It is proposed to raise a capital of £120,000/—in 6000 shares, of 20/- each, on which instalments, to the amount of 10/- 10s. per share, are to be called, extending over a period of five years—45,000/- being paid by five equal instalments, as the purchase-money of the property, while it is contemplated that a floating capital of 5000/- will be ample for the purposes of prosecuting the collieries, the estimate of profits ranging from £5000/- to £9000/- per annum; and it is assumed that the result of the first year's operations will yield a dividend of 15 to 20 per cent. on the amount paid as deposit or first call of 2/- 10s. per share. We believe two-thirds of the shares have been already taken up, and that the concern may be considered as a private adventure: we are glad, however, at all times, to draw attention to any novel project.

#### BRITISH MINING OFFICES,

41, MOORGATE-STREET, LONDON.

The Tin, Copper, and Silver-Lead Mines in Cornwall, Devon, and Wales, have lately drawn more than the usual attention of capitalists to their immense wealth, and the large returns made by an efficient application of capital; while the increased knowledge of geology, the vast improvements in the steam-engine, and the economy in working, together with the low price of materials, make them a source of greater and more certain profit than at any former period—thereby constituting them a legitimate, safe, and profitable investment.

These offices have been established at the suggestion of several gentlemen connected with the mining interest, and who have long been impressed with the conviction, that a desideratum, such as the present, is essential in promoting the objects of those who may embark in mining pursuits; and when it is considered that there are large tracts of rich mineral ground unexplored, where money, judiciously laid out, would produce very handsome profits, there can be no doubt but that such offices will be highly beneficial to the mining interests—whether considered with reference to the lords or adventurers.

Mr. J. B. Clymo, of Cornwall, who is acknowledged to be a scientific and practical miner, will be in attendance at the offices (unless when required for the purpose of surveying, &c.), and will give the fullest information as to the respective mines, as well as upon mining generally, on application personally, or by letter. It is further intended, for the satisfaction and security of those who may confide their interests to this Office, that all Mineral Agents shall be thoroughly examined and reported upon by respectable and competent mining agents, previously to the investment of capital.

A "Finance Committee" will be appointed from the body of shareholders in each mine, in whose names the funds will be paid into the banker's hands, to defray the expense of working; and as the "Cost-book Principle," under which the best regulated mines in Cornwall have been advantageously managed, will be strictly adhered to, the shareholders will be subject to no liabilities, inasmuch as the accounts will be audited and settled every two months, and copies transmitted to every shareholder. A majority of the shareholders in each particular mine will have the entire management and control thereof, at the meetings called every two months, whether present or by proxy.

A "Register-Book," for the Purchase and Sale of Shares in the various Mines, will always be open for inspection; and when purchases or sales are effected, a trifling charge will be made towards defraying the expense of the offices, while the advantages of rendering transactions of this nature perfectly open, must be manifest and duly appreciated.

All Reports received from the Captains or Agents of the different Mines will be copied into Report Books, to which access can at all times be had.

Parties in the country possessing good and valuable mining ground will be assisted in the formation of a company for working it; and the proprietors of any mines, who may have no offices in London for reference, can transmit their weekly or monthly reports and accounts to be referred to by the London adventurers.

The Offices have been conveniently fitted up, and rooms set apart for the use of those who may be desirous of conferring together upon matters connected with the Mining interest.

The necessary arrangements for conducting the correspondence, and affording such information as may be sought by parties residing either in London or the country, have been completed, and are such as, it is presumed, cannot fail to secure the support and patronage of all those whose object is the acquisition of accurate data connected with mining operations.

Highly respectable agents have been appointed in the principal towns in the kingdom for the allotment of original shares in the different mines, the affairs of which are conducted at these offices.

All further particulars may be obtained on application at the Offices, 41, Moorgate-street, London.

THOMAS HENRY TAUNTON, Secretary.

**PANTDRAINIOG QUARRY SLATE COMPANY,** Bangor. Registered provisionally, pursuant to the 7 and 8 Vic., cap. 110. Capital £40,000, in 2000 shares, of £20 each. —Deposit £2 10s. per share.

DIRECTORS.

JOSEPH LAWRENCE BUTLER, Esq., 1, Dale-street, Liverpool.

JOHN FOWLER, Esq., 8, Rodney-place, Clifton, near Bristol.

ISAAC JOHN HORLOCK, Esq., Rocks, Marshfield, Gloucestershire.

HENRY BURCHFIELD SWABEY, Esq., Great Cumberland-st., Hyde-park.

(With power to increase their number to seven.)

BANKERS.

Messrs. Charles Hopkinson and Co., 3, Regent-street.

Messrs. Puget, Bainbridge, and Co., 12, St. Paul's Churchyard.

SOLICITORS.

Messrs. Richardson, Smith, and Sadler, 28, Golden-square, London.

SECRETARY.—Mr. John Henry Murchison.

OFFICE—19, ESSEX-STREET, STRAND, LONDON.

This company is formed for the purpose of working the Pantdrainiog Slate Quarry, in the parish of Llanllechid, Carnarvonshire, the proposed purchase of which can be effected on terms most advantageous to the company.

The slate from the Pantdrainiog Quarry is of the pure Bangor vein, and of the finest weight and colour. The quarry is situated about five miles from Bangor, and is a portion of an estate covering an area of about 294 acres. The great Holyhead road passes through this property, and connects the quarry with the wharf at Garth Point on the Menai Straits, and also with the Chester and Holyhead Railway, which crosses the turnpike road, at a point about three miles distant, the proximity to which will enable the company to convey slate into the Liverpool, Manchester, and Midland markets, with a punctuality and despatch that cannot now be attained through the medium of shipping.

The quarry, upon which a large sum has been already expended, has been opened for 20 years; and there is at present about 80,000 tons of marketable slate to be obtained from the metal now uncured.

The property is held for a term of years, which will expire in 1903, without any royalty, and upon exceeding favourable terms.

Taking the value of 1 ton of slate at a price which below that which is obtained, and estimating the cost of getting, making, and carting, and all the expenses of management, there will remain a net profit upon the capital of £20,000, equal to 20 per cent. per annum.

Parties desirous of taking the cancelled shares, may apply personally till the 15th day of June next, to any of the following gentlemen:—In London, to the secretary, at the office, No. 19, Essex-street, Strand; to Messrs. Richardson, Smith, and Sadler, 28, Golden-square; or to Mr. James Lane, mining agent, 75, Old Broad-street, City; in Liverpool, to Messrs. D. and J. B. Neilson, or to Messrs. Sudlow, Brothers; in Manchester to Messrs. Cardwell and Sons, or to Mr. Augustus Hahn; in Birmingham, to Mr. W. H. Collis; in Bristol, to Mr. Henry Dayrell, Clare-street; and in Exeter, to Mr. B. Tripp, 14 and 18, High-st.

Promises, with the engineer's report, and engraved plans of the quarry, may be had on application at any of these addresses; and at the office of the *Mining Journal*, 26, Fleet-street, London.

#### Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning, Eleven o'clock.	
Bank Stock, 7 per Cent., 198	Belgian Bonds, 4½ per Cent., 93½
8 per Cent. Reduced Ann.,	

# RAILWAY AND COMMERCIAL GAZETTE.

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## LATEST CURRENT PRICES OF METALS.

LONDON, JUNE 4, 1847.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
IRON—Bar & Wales	0 0—8 12 6	COPPER—Ordin. sheets, &c.	0 0—0 0 11		
" London	0 0—9 12 6	" bottoms	0 0—0 0 12		
" Rail rods	0 0—10 5 0	YELLOW METAL SHEATHING	0 0—0 0 21		
" Hoop (Star)	0 0—11 10 0	TIN—Cone. blocking—cam.	4 10—4 12 0		
Sheet	0 0—12 5 0	" bars	0 0—0 12 6		
Bars	0 0—11 5 0	Refined	0 0—4 12 0		
Welsh cold-blast	4 10—5 5 0	Straits	0 0—4 10 0		
Scotch pig, Clyde	3 5—7 7 6	Bancs	0 0—4 10 0		
Rails, average	0 0—9 0 0	TIN-PLATES—Ch. IC4 box	1 9—1 11 6		
Russian, C.N.C.	0 0—	" IX	0 0—1 17 6		
" PSI	0 0—	Coke, IC	0 0—1 17 6		
" Gourloff	0 0—	LEAD—Sheet & foil	0 0—19 0		
" Archangel	0 0—13 18 0	Pig, refined	0 0—20 10 0		
Swedish iron on the spot	11 10—12 0 0	" common	0 0—18 15 0		
" Steel, flagt.	0 0—17 10 0	Spanish, in bd.	17 10—18 0 0		
SPELTER—(Cake) Iron on spot	0 0—20 0 0	SPELTER	0 0—20 0 0		
COPPER—Tin	0 0—9 0 0	ZINC—(Sheet) in export	0 0—28 0 0		
Tough cake	0 0—9 0 0	" for arrival	19 15—20 0 0		
Best selected	0 0 101 0 0	ZINC—(Sheet) in export	0 0—28 0 0		
QUICKSILVER	0 0—4 6				

Discount 24 per cent. b Net cash.  
e Discount 24 per cent. d Ditto  
in Kgs & f-inches. f Discount 3 per cent.  
g Discount 3 per cent. h Net cash  
in bond. i Discount 3 per cent. j Ditto 24 per cent.  
k Discount 12 per cent. l For home use it is 327 per ton.  
m Discount 12 per cent.

## MONTHLY REPORT.

IRON.—English bar-iron has been in little demand during the month, and prices have fallen 5s. per ton. Within the last few days a better demand has taken place, and makers now refuse to sell under 81. 10s. at the works in Wales. The rail market has been exceedingly dull, principally owing to the difficulty the various companies experience in getting in their calls. Scotch pig-iron declined to 63s. 6d., mixed No.'s, and 64s. to 65s. No. 1; but within the last few days rather higher prices have been asked. Swedish iron and steel are still of use.

COPPER is without alteration.

TIN.—English continues dull of sale, and low prices may be anticipated. Straights have fallen to 65s., Bancs is nominally 92s. The sale of about 120,000 slabs of the latter announced to take place in Holland, on the 27th July next.

TIN-PLATES are flat at quotations.

LEAD.—English is in fair demand for home consumption, but for exportation there is scarcely anything doing.

SPELTER is gradually declining, and there is little business doing. Holders are anxious sellers at 30s. per ton on the spot, and at 19s. 10s. to 20s. for early arrival, without finding buyers. The stock in warehouses here on the 1st inst. was 1240 tons.

GLASGOW PIG-IRON TRADE, JUNE 3.—The fine weather, and consequent improvement in prospects, have had the effect of stiffening the price of pig-iron this week. There was considerable demand on Monday and Tuesday, and sales were effected to some extent at 64s., and 64s. 6d., each. To-day, although there is less inquiry, there is no greater disposition to sell, and in the absence of transactions, quote the price nominally at 65s. The ironmasters have resolved upon making a reduction in the workmen's wages, to the extent of 25 per cent., which, apparently, will be submitted to.

The North British Mail of Wednesday says—"Pig-iron continues firm, and there are buyers at 65s. per ton for mixed numbers—prompt cash. We mentioned some time ago, that the makers had refused to continue to pay the present rate of wages to their miners, and the master has now set at rest, by the miners accepting a reduction of 6d. to 8d. per day, thus enabling the ironmasters to produce at a cheaper rate. Messrs. Taylor and Co.'s circular gives the price of pig-iron at New York, on the 15th instant, at \$35, which is a considerable rise on previous quotations."

THE IRON TRADE.—Throughout the whole of the southern division of Staffordshire the iron trade is in a prosperous and healthy state; and it is a pleasing circumstance that, while in or near her neighbourhoods the working classes have so severely suffered from low wages and the high price of provisions, the people in this part of the country have had little cause for complaint. Amid the many conflicting statements which from time to time have made their appearance in the public prints with reference to the actual state of the trade, that is, for the most part, discernible a disposition to favour particular interests and individuals, to the injury of the general body. In a recent number of the Morning Herald a statement is made, as it would seem upon high authority, "that the directors of some of the railway companies, foreseeing the difficulties they have to encounter in raising the necessary funds to construct their lines, have demurred to signing the contracts they had agreed to execute with the ironmasters. It is stated on the same authority, that it is in contemplation, "to make a very considerable reduction in the wages, at a time when the high price of provisions is most likely to induce the workmen to resist the depression." We have made inquiries from several of the largest masters in the district; and we are happy to state, in the emphatic language of one of our informants, that there is not a word of truth in the entire statement.—Birmingham Journal.

PROJECTED STRIKE OF THE IRON AND COAL MINES OF LANARKSHIRE.—We are informed that the ironmasters of Holytown, and of the other mining districts of Lanarkshire, have intimated their intention of reducing their workmen's wages 1s. per day. Meetings of the men are this week being held over the county, at which resolutions in favour of a strike, it is said, will be carried without opposition. The workmen state that the stocks of coal and iron at present held by the masters are not large, and on that account they expect to have a successful contest.—Glasgow Chronicle.

## PRICES OF METALS IN AMERICA.

NEW YORK, MAY 15, 1847.

	8 cts.	8 cts.	8 cts.	8 cts.	8 cts.
COPPER—Sheathing	1b. 0 22—	1b. 0 22—	1b. 0 22—	1b. 0 22—	1b. 0 22—
" Old	0 18—	0 18—	Hoops do.	0 5—	6—
" Braziers'	0 24—	0 25—	NAILS—Cut 4 da. 40.	0 4—	0 4—
" Pig	0 18—	0 0—	(3d. 1c. & 2d. 2c. more)		
" Bolts	0 24—	0 25—	" Wrought, 6 to 20—	0 10—	0 14
LEAD—Pig	4 37—	4 44—	Horse-shoe	0 17—	0 21
" Bar	0 48—	0 5—	SHOT—Patent	0 5—	0 0—
" Sheet	0 0—0 5—		Buck	0 6—	0 0—
IRON—Pig, Eng. & Scotch	0 0—35 0		SPFELTER—In plates	54 c—	0 0—
" American, No. 1	0 0—32 50		STEEL—German	1b. 0 10—	0 13—
" common	25—25—		" English Hoop L.	0 13—	0 13—
Bar, R.P.S.I.	100—100 50		" Spring	0 5—	0 5—
" Swedish	87 52—		" Trieste	0 0—	0 0—
" American, old, 35	0 0—0 0		" American	0 4—	0 5—
" English refined	85 0—		TIN—Block, South Amer.	0 0—	0 0—
" common	70—72 50		" Dito, East India	0 0—	0 0—
Sh. Russian, 1st qual.	0 11—0 12—		" In plates, 4 da. bx.	9—	9—9 50
* Duty—Pig and bar, 3; old and scrap, 14; sheet, 4 cts. per lb.					

## NEW PATENTS.

W. Horne, Long Acre, Middlesex, coach-maker, G. Beeson, Battersea-fields, Surrey, commander, R.N., and A. Smith, Millwall, engineer, for improvements in wheel carriages. R. A. Broome, Fleet-street, patent agent, for certain improvements in the processes and machinery employed in scouring and bleaching. (Being a communication.) A. Stevens, Queen's-terrace, St. John's Wood, Middlesex, for a new or improved preparation or preparation of certain substances for making various glutinous compounds. J. Hill, Hull, near Manchester, machine-maker, for improvements in looms, for weaving certain kinds of cloth.

C. Nickels, York-road, Surrey, for improvements in the manufacture of woven fabrics, and in giving elasticity to certain articles or fabrics.

T. Woodbridge, Osborne-street, Whitechapel, for certain improvements in steam-engines. G. Taylor, Holbeck, near Leeds, mechanic, for improvements in the construction of engines and carriages, to be used on railways.

B. E. Berger, Aberchurch-lane, London, merchant, for certain improvements in the construction of railway carriages.—Mechanics' Magazine.

TESTIMONIAL TO MR. BRUFF, C.E.—A service of plate has just been presented to P. S. Bruff, Esq., engineer to the Eastern Union Company, bearing the following inscription:—"Presented, on the completion of the Eastern Union and Ipswich and Bury St. Edmund's Railways, to Peter Scholten Bruff, Esq., C.E., by the resident engineers, contractors, superintendents, and inspectors engaged in the execution of the works, as a mark of their unfeigned esteem, and to record their unqualified opinion of his superior talents as an engineer, and their deep sense of his uniform kindness and courtesy to all employed under him." This testimonial, the presentation of which must have proved highly gratifying to the able recipient, consisted of a splendid candelabrum of Elizabethan design, with seven lights, four double dishes, tureen, and boat. The weight was between 600 and 700 ounces, and the cost upwards of £400.—Railway Record.

MANCHESTER AND LEEDS RAILWAY.—A special meeting of this company was held on Friday, at which it was resolved to borrow £600,000., under the provisions of their various Acts of Parliament, Mr. HOULDWORTH (the chairman), entered into a statement of the financial position of the company, which appeared to be very satisfactory; and stated that, notwithstanding a decrease in the fares and rates of charges for goods, there had been a slight increase in the receipts.—Railway Record.

## MISCELLANEOUS COMPANIES.

Shares.	Companies.	Paid.	Div. p. cent.	Price.
10,000 Assam Tea Company		£30	£ 3	
10,000 Auction Mart		—	£ 4	26 28
10,000 Australian Agricultural		30	1	20 22
8,000 Australian Trust		35	—	30
10,000 British Alkali		25	4	154 164
10,000 British American Land		35	—	14
8,600 British Rock and Patent Salt		35	7—	18
8,915 Canada		324	6	284
1,800 Corn Exchange		374	12	99 100
5,000 Dordwich Patent Salt		25	4	11
2,700 Equitable Reversionary		95	48	90
— General Reversionary Interest		100	5	104 106
20,000 General Steam Navigation		14	12—	244
— Hudson's Bay Stock		—	10	240 240
2,100 Hungerford Market		—	12	31 32
1,800 London Commercial Sale Rooms		—	12	23 24
8,000 London Reversionary		23	10	196
10,000 Mexican and South American		7	3	34 4
20,000 New Brunswick		75	—	68
5,287 Reversionary Interest Society		40	—	59 60
8,000 Royal Mail Steam		—	54	53
20,000 Uppes Canada		100	5	93 94
10,000 Van Diemen's Land		20	—	3 4

\* Those marked with an asterisk (\*) are dividend per share.

## PRICES OF MINING SHARES.

BRITISH MINES.	BRITISH MINES—continued.
Shares. Company. Paid.	Shares. Company. Paid.
1000 Abergevin	800 South Town
513 Albert Consols	256 South Trelawney
1024 Alfred Consols	128 South Yealand
235 Andrew and Nangiles	128 South Wheat Bassett
10300 Ayrshire Iron Company	124 South Wh. Francis
1624 Balwidder	256 South Wh. Hope
1000 Banwen Iron Co.	1000 South Wh. Maria
1000 Barriston	256 South Wheat Ross
4000 Bedford	280 Spears Moor
128 Besore Mine	94 St. Austell Consols
315 Birch Tor Tin Mine	94 St. Ives Consols
8000 Blaenavon	128 St. Michael Penkivel
1000 Calstock	17 St. Michael Penkivel
1000 Callington	1000 Stray Park
256 Caradon Consols	5000 Trellech Consols
256 Caradon Copper Mine	2000 Trenow Consols
256 Caradon United	256 Ting Tang
128 Carew	128 Tokenbury
128 Calstock	256 Trebetherick
1000 Camborne	128 Trevethick
2048 Carmarthen Consols	128 Trevethick
112 Charlestown	128 Trewhella
166 Cleveland	6000 United Hills
512 Coalite Hill	256 Wellington Mines
1000 Combe Martin	128 West Basset
128 Comfort	256 West Caradon
25	

## NOTICES TO CORRESPONDENTS.

It will at all times save much trouble, and frequently considerable delay, if communications are simply directed—  
TO THE EDITOR,  
*Mining Journal Office,*

26, FLEET-STREET, LONDON.

Also, to avoid trouble, POST-OFFICE ORDERS should always be made payable to WILLIAM SALMON MANSELL, as acting for the proprietors:

J. J. D.—Hanover-place, Regent's-park.—The oscillating engine was patented by Mr. Witly, on the 15th June, 1813. Dr. Jamieson, in his *Dictionary of Mechanical Science*, observes that "the name of Witly will never be forgotten while the steam-engine is remembered, or we shall retain its use." Witly, like most of his class, found the truthfulness of the adage, that "genius is a gift which enricheth others, but destroys the possessor." He secured, by patent, no less than 10 different inventions—three for steam-engines; two for gas-burners; one for a pump; one for a steam-carriage; one for tubular flues, for consuming smoke; one for a gas furnace; and one for improvements in the constructing of bridges and roofs. It is seldom that authors of new inventions derive much benefit from their labours; with Witly, many of his inventions are flourishing, and producing thousands to others—while he, the author of them, and who struggled for years to obtain their introduction, in 1814, when in his 70th year, was in a state of beggary; an appeal was made to the engineering world in 1845, but only a small sum was collected. In 1829 marine oscillating engines were introduced by Nauby, in a vessel named the *Brilliantia*—afterwards by Maudslay, Spiller, the late S. Saward, and, finally, by the Messrs. Penn. An arrangement of oscillating-engines has also been patented by our talented correspondent, B. Biram, Esq.; in 1844 there were upwards of 6000-horse power at work on this principle.

RAILWAY IMPROVEMENTS.—We have in type a description, with engravings, of Mr. P. C. Chassen's proposed System of Railways and Railway Carriages.

Mr. Darlington on the Working and Ventilating of Coal Mines, in our next; also, Mr. D. Master, Jun., on the Government Interference in Mines.

BRIDGE BUILDING.—In our next Journal we shall publish some statistical information (by Mr. Motley) respecting Bridge Building—having reference to the late deplorable accident on the Chester and Shrewsbury Railway.

THE MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all the news agents, at the Royal Exchange, and other parts of London.

THE MINING JOURNAL  
Railway and Commercial Gazette.

LONDON, JUNE 5, 1847.

The publication of a Reply (for we believe more than one reply has been furnished to Lord CLARENDON, though only one published,) to the letter of Sir CHARLES LEMON, Bart., on the copper ore duties, affords us an opportunity of calling the attention of our readers to it, and also of reviewing our own opinions on this subject.

The rise and progress of the trade in foreign copper ore affords a very instructive lesson in commercial affairs, the whole course of it being within the memory, and under the observation, of almost the youngest among us—for 20 years ago it had no existence. The introduction of the article into this country having been vigilantly guarded against by the imposition of a prohibitory duty, from the notion then prevalent, that it was necessary to "protect" our native mines; though how that could be protected from foreign competition, in the sense then supposed, which had itself to seek a market in foreign countries, it is difficult to imagine. And how little it effected its purpose, the great fluctuations in the price of copper, and the frequent complaints that our deep mines must be abandoned, during the existence of those prohibitory duties, are ample evidence. In 1827 a change was effected in the law, which allowed foreign ores to be imported and smelted in bond—the produce to be re-exported in the shape of cake, or unmanufactured, copper—and, for some years, the chief imports consisted of the produce of one mine in Venezuela, which, it was confidently predicted, would ruin the mines of Cornwall, though that mine has been abandoned some years, after ruining those who embarked their capital in it; and the mines of Cornwall are producing more copper, and, we believe, yielding better profit, than they did previous to this alteration in the law. Those provisions of the law of 1827, which restricted the export of the produce of foreign ores to unmanufactured, or cake, copper, were found to produce results injurious to the manufacturers and consumers of copper here; and it was deemed expedient to do away with the system of smelting in bond, and to levy a duty in its stead—partly as a source of revenue, and partly as a "protection" to our own mines; which change, like that of 1827, was loudly cried out against by the mining interest of this country as fatal to their prosperity.

Soon after this change of the law, parties interested in the export of manufactured goods from this to Chili, and the importation of copper ores from that country, together with some of the smelters of this country, whose works were more immediately dependent on such supplies of ore, began to express fears of the injurious effects of the duty, although no such effects were then evident; but, on the contrary, the quantity of ore imported had gone on increasing, say to the year 1844; and this increase was mainly relied upon by the advocates of the duty, as evidence that its imposition had not, and would not, interfere with the trade. But the parties above alluded to, insisted that they had undoubtedly evidence that it would interfere with it, by encouraging smelting abroad, and diverting large portions of the general supply of copper into other channels, to the detriment of important interests; and that if Government waited until this happened, before they would be convinced, it would then be too late to retrace our steps. If we look back from this point, we shall be struck with the beneficial results of the relaxation of the prohibitory system in 1827. We had then no trade in foreign copper ores; while, in 16 years afterwards, it had not only been called into existence, and was a growing branch of commerce, but it had actually reached to the value of nearly a million sterling, and employed considerable numbers of our own mining population at higher wages than they could earn at home—enabled the producing countries to take more of our manufactures in exchange—afforded back freight for our shipping, and additional employment for our colliers and smelters—concentrated in a greater degree the copper trade of the world in this country, and enabled us advantageously to supply the growing wants of other countries with this important metal. Having taken this retrospective glance at the trade, we will not here follow either Sir CHARLES LEMON, or his opponents, through the war of words with which they assail each other; but will content ourselves with a simple statement of the circumstances, which are now patent to the world. Chili has proved herself to be a most important copper producing country, and it is now beyond doubt that she has the means of converting the ores into fine copper. Smelting, more or less rude, had always been carried on in that country, but had been partially abandoned, to send the ores to England. But now these abandoned works have been restored, and, at least, two new ones established on the English principle. Thus far in Chili—then in the United States two smelting works are in operation; a considerable one is in course of erection near Hamburg: the French are smelting the rich ores of Peru; and in Sweden works are in progress—all of which were unheard of before the imposition of the duty. From a dispassionate review of these facts, we think the only rational conclusion to be drawn is, that the duty is interfering with this trade, and threatens to raise up rivals in branches of business, which it is especially desirable to concentrate as much as possible in this country.

Our readers are aware that we have frequently maintained opinions at variance with these we now express; and we are free to confess, that our zeal for the mining interest of this country, and our earnest desire especially to promote the welfare of the working miner, and to protect him from undue competition, has, in some degree, prevented our looking at this question in all its bearings; but, having advocated the withdrawal of the so-called protection to the British farmer and other classes, by a repeal of the duties on corn and other articles, and being constantly engaged in urging on the French, and other Governments, the repeal of their duties on the

importation of iron, though those duties are (because they are not exporters of the article), a real protection to their own mines; and believing, as we do, that the principles of free-trade tend to the general welfare, we cannot longer hesitate to avow, that we believe the time is come when the copper ore duties may be repealed, without any injury to our own mines, and with certain benefit to other important interests.

We cannot, however, close these remarks without directing attention to the lengthened extracts which we have given in another column, from the letter in reply to Sir CHARLES, by the Liverpool Committee of the advocates for abolition, in which is so ably exposed the shifts to which the supporters of protection (<sup>are</sup>) are driven, for arguments to uphold an insupportable and failing cause. The exposition is carried through every paragraph, every sentence of Sir CHARLES LEMON's epistle; and clearly exhibits the fact, that while he accuses the committee, in their Memorials to the House of Commons, not only of bringing forward insufficient arguments, but of intentional exaggeration; that his letter consists of unsupported arguments, unfounded assertions, and garbled extracts, from beginning to end. In support of this latter assertion, we need only call attention to the letter from Messrs. GEMMELL, a part of which Sir CHARLES only quotes—a few lines inserted by the writers as an introduction to their opinion on the *ultimate* effects of the duties on the British copper trade—a few lines, ending with a semicolon, as introductory to the word "but," &c.—to which we draw the particular attention of our readers. Such is the way in which the advocates for a duty on foreign copper ores attempt to convince those who are not in the habit of thinking and reading for themselves—that the repeal of a duty, which brings into the Treasury the *enormous* revenue of 50,000*l.* per annum, would bring destruction to our Cornish brethren, put a stop to the working of the mines, annihilate commerce and manufactures, and make us dependent on foreigners for our supplies. Again, with regard to timber, tallow, and sugar, being raw materials for manufacture, Sir CHARLES has been equally unhappy. The letter under notice shows, what every man of the least pretensions to commercial knowledge is aware of, that these articles are imported for consumption; and which, indeed, Sir CHARLES himself admits of the two former, when he says, "they are extensively used in the Cornish mines." We will not follow further the erroneous statements, for which the Member for West Cornwall has made himself responsible; but just observe, that the letter of the committee not only shows the fallacy of the grounds on which the advocates of the duty support their views, but adduces evidence from official returns—from long experience with those countries from whence our foreign supplies of ores are derived—from a knowledge of the changes which have taken, and are taking, place, and a pretty clear conception of future results—to convince every unbiased mind, that the case is one demanding prompt consideration, and that none of the counter statements have tended to invalidate it, or to impugn the correctness of the grounds upon which the claim for the remission of the duties is founded; but that every year's delay tends more firmly to establish the opposition which has so early taken root in other countries, and which will soon, if unchecked, deprive England of a large and important trade.

The state of the mining population of Cornwall is becoming truly alarming; the impossibility of hundreds of families obtaining for months past sufficient food through the high price of provisions, is not only ruining the physical energies of the men, but driving them to measures which has well nigh threatened the peace of the county; and, as is always the case in such emergencies, idle, half-drunken fellows, prowling about ready to take advantage of every opportunity for plunder, are endeavoring to excite the more peaceable of the population to acts of violence. We are glad, however, to record, that the majority are peaceably inclined, and only require that provisions should be supplied to them at a lower rate. At a meeting of the Mayor and Justices for the eastern and western divisions of Penwith, held at Penzance, on Monday last, a deputation was admitted from a large assemblage of people, principally miners, congregated at Chydour. They stated their propositions, which were—1. That flour and corn should be supplied them at such a price as to enable them to obtain a sufficiency for their families from their mine earnings, which at present they were unable to do—2. That some men, from weakness for want of food, are unable to get up the ladders from their work without assistance; that their object is to act peaceably, and to solicit the regard and true sympathy of the public.—3. That it is their conviction, that circumstances admit bread and flour to be had lower; and 4, that wages might, perhaps, be increased a little; but, under all circumstances, it would be better that provisions should be cheaper. These propositions having been considered, it was resolved, that the price of barley to all miners, until the 1st of September, who do not earn more than 5*s.* per month, shall not exceed 16*s.* per Cornish bushel (three Winchester bushels); and that no family have less than half a bushel per week. A circular was then drawn up to send to lords and adventurers who had not attended the meeting, and a subscription entered into to defray a portion of the loss which would be sustained. The town of Penzance was thronged with miners and their families, the shops were all closed, and serious disturbances were expected; eventually, however, all passed off quiet. We are glad to record this ready acquiescence with the wants of the population; but trust that, long before the 1st of September, the resolution will become a dead letter, and the men be able to obtain provisions at a price commensurate with their earnings. Foreign provisions are now pouring in from all quarters—there is every prospect of a superb harvest at home—already has the barometer of commercial prices begun to indicate a steady fall—and there is every reason for hope that, ere many weeks elapse, provisions will be at a price to carry to every cottage plenty and content.

It is with much pleasure we observe, that at length attention is being directed to the absolute nature and contents of the produce of our mineral districts; and that not content with mere simple assays for any one metal, which may be supposed to exist in any description of ore, it is probable our mining adventurers will, in future, to a considerable extent, submit samples of the produce of their sets to full chemical analysis, from which there is little doubt but many discoveries of substances of a valuable nature would be made, hitherto thrown away as worthless. We are led to these remarks, from the facts recorded in our last week's Journal, with regard to Herland Mine and Wheal Tremayne—in the latter of which, 1582*s.* per ton was actually obtained, for what the agents expected to get only about 13*s.* for, and which had been the previously usual price. In another column, will be found a letter on the subject from our respected correspondent, Mr. JOHN MITCHELL, to which we direct attention, as expressing most clearly and convincingly the necessity for careful chemical investigation, in every case where minerals are found presenting new or uncertain features.

COMMUNICATION BETWEEN GUARD AND ENGINE DRIVER.—The self-evident importance of the guard of a train being able to communicate a signal to the engine driver, in the event of any accident happening to a carriage, or for any other cause, has led a correspondent to propose the following simple plan, which we think may be found practically useful!—Let two perpendicular guide pieces be fixed to the funnel of the engine, in which shall slide, facing the driver, a metal plate painted white, and the word "stop" printed on it in black letters; to this plate should be attached a small chain, passing over a pulley fixed near the top of the funnel, and carried within reach of the guards. In case the engine is required to be stopped, the plate should be drawn towards the top of the funnel, and kept there till noticed by the driver, which he could scarcely fail to do.

THE ACCIDENT ON THE CHESTER AND SHREWSBURY RAILWAY.—The falling of the bridge over the Dee, on this line, and the consequent loss of life, has caused a sensation with regard to the responsibility of engineers, Government inspectors, &c., never before observed; and well it may have done so, it being an accident of no common kind, it not having arisen from the common causes of concussion, broken rails, &c.; but, as appears most likely, from all we can yet learn, it arose from some inherent defect in the bridge itself—either with regard to the construction, or the iron girders by which it was supported. In last week's Journal, we gave full particulars of the accident, and the dimensions of the several parts of the erection; our observations on this occasion will, therefore, be confined to the evidence on the inquest, and on such accidents generally. With respect to accidents of this nature, there has been several, but, happily, without loss of human life; and the greater majority have taken place before the opening of the lines of which they formed a part. There can be no doubt, that in proportion to the vast increase of traffic which has taken place in the last 10 years, accidents have amazingly diminished, whether from better regulations on the part of railway management, or from a growing acquaintance of the public with railway dangers; we are not prepared to say; but, certain it is, that ten to one of the fatal accidents which have occurred, have been owing to the recklessness, or thoughtlessness, of the parties themselves. But here there is no such plea—here is a viaduct on a line of 81 miles, but just declared safe by the Government inspector, when on a train passing without any indication of danger, without the least symptoms of weakness, or fault of structure, the carriages are precipitated into the gulph below, and five human beings launched into eternity. On the inquest, evidence was given, that the girders had been known to suffer a deflection of from 8 to 5*i.*, which was denied by Major-General Pasley (the late inspector, who had declared the viaduct perfectly safe), giving as his opinion, that a cast-iron girder would have snapped long before a deflection could have reached 4*i.* The most important part of the proceedings, however, was a report of Mr. Stephenson, the engineer-in-chief on the line, who stated, that on his way to Bangor, a few hours before the accident, he narrowly examined every part of the structure, and saw nothing to indicate weakness—neither could he perceive any imperfections in the manner in which the work had been fitted. He confidently concluded, that every part was firm and sufficient; and the fact alone, of the traffic having been carried on since October last, fully justified such opinion. Throughout his report, Mr. Stephenson evidently endeavours to make it appear, that the engine and tender, and probably a portion of the carriages, were off the rails some time—that the tender was heaved up, and struck the girder a violent side blow, which broke it, dislodging the masonry, and thus causing the fall of the other girders, and the entire structure; but we would ask Mr. Stephenson, can a viaduct, having to sustain such enormous weights and pressure, be considered properly constructed, which could not withstand a scraping side blow and pressure from an engine tender; for it could be no more, without falling to pieces, and letting the carriages through the trap thus open to receive them? We think every impartial engineer will answer—no! The fact is, that through the anxiety of railway proprietors, and continually worrying to get a line open, and engineers and contractors to pocket their fees and payments, one-half the works of masonry of this description on modern lines are inefficiently constructed, and brought into use too soon—while of all others, on a railway they are the most important; and now that railway construction is extending itself to an unknown limit, we think it behoves the Government to provide some proper inspecting authorities, to secure the public from these catastrophes; for it is evident, nothing can be depended upon from your soldier-engineer inspectors, who can know but little of railway construction, and who make a gala day of one of inspection, just before the opening of a line. Since writing the above, the inquest was continued, but not concluded. Sir E. Walker said he would not travel on the line, and he wished Mr. Stephenson might make himself right with the public. Mr. Stephenson said, he hoped he should again obtain the public confidence. Messrs. Locke and Vignoles supported the views of Mr. R. Stephenson, but Mr. Walker and Capt. Simmonds would not give an opinion until, from a further inspection of the works, they could ascertain if there was any trace of the engine and tender going off the line.

ACCIDENT ON THE BRIGHTON AND PORTSMOUTH RAILWAY.—The train which leaves Brighton at 10 minutes past four reached Bosham, about three miles beyond Chichester, at the appointed time (40 minutes past five). It had proceeded about a mile and a half, and was going at the rate of from 30 to 35 miles an hour, when the engine suddenly leaped off the line, and ran, at an angle of about 45°, across the up line, and over the embankment, which at that spot is about 4 feet high. The body of the engine-driver was found lying between the rails under the foremost carriage, and the stoker was lying within a yard or two of the engine-driver, with one of his arms off, the whole of the tender having passed over and severed it from his body. It is a very singular fact, that none of the passengers were in the slightest degree hurt; and, indeed, one of them asserted, that he was not aware any thing had happened, until the train stopped, and that it did not stop violently.—On the coroner's inquest, which was held on Wednesday last, there was, as usual, an attempt to evade answering questions, and the engineers had taken the engine entirely to pieces, so that it was impossible to trace any cause for the accident. Mr. Kirtley, the locomotive engineer to the company, on being asked for a reason for the accident, said, "He did not like to answer the question; the Government Inspector would be down, and he would want." The coroner, however, pressed him for an answer; and he said his own impression was, that the engine left the line from the oscillation to which that particular class of engines were subject—one of Stephenson's patents, with three axles under the boiler, and the cylinders placed outside, which always caused oscillation, and there is an overhanging weight at each end, which causes a kind of undulating motion. After being several times pressed for "Yes," or "No," to the question, "Is it a safe engine?" he said, "I think there are some objections to be raised, but I wish it to be understood, that I do not consider it an unsafe engine; Stephenson was consulting engineer, and he thought he had some interest." This is the way in which evidence is wrung out of railway officials; and every possible step is resorted to, to keep the true causes of these lamentable occurrences from the knowledge of the public.

NEW IRON-WORKS IN SOUTH WALES.—(From a Correspondent.)—The "Briton-Ferry Iron Company" rolled their first bar of iron on Whit-Monday, amidst the acclamations of a multitude assembled to witness the commencement of "rolling," by these new and important works. The day was kept as a holiday in the neighbourhood—the vessels in the harbour were gaily decorated with flags, and throughout the day the rocks and mountains reverberated the roar of guns and the shouts of the people; all was excitement and congratulation, and joyous anticipation. This company of spirited capitalists have judiciously selected, as the site of their works, a piece of ground, which is the terminus both of the Neath Canal, and of a branch of the South Wales Railway: the river Neath flows on one side, and the proposed docks bound it on the other. This position thus commands unequalled facilities for the transmission of the raw materials from the adjacent native beds, and for the transport of the manufactured article to the market. Under the skilful management of an experienced gentleman, a powerful engine, numerous furnaces, large rolling-mills, and all the apparatus for the manufacture of iron bolts, rails, plates, &c., as well as comfortable cottages for the workmen, have been erected. The works commenced most auspiciously, and, for the sake both of the proprietors, and of the labouring class, we sincerely hope they will proceed successfully—of which we have no doubt, if we may credit the augury of the many "iron men," who very critically examined and tested the quality of the bar, and who declared it to be superior to any hitherto made in Wales, and even tougher and stronger than Staffordshire iron. Is this the beginning of a new era in this iron age? Is Wales to take the precedence of England, and the prestige of the north to pass to the west? It is said the Briton-Ferry Company aspire to the honour of solving this problem, by making their "B. F." the *favourite brand* in the market.

OAKEN AND CHURCHWAY COLLIERY, FOREST OF DEAN.—In the Bankruptcy Court, on Monday last, Mr. Matthewman, of Coleford, Gloucestershire, coal mine proprietor, was brought up to be discharged from custody, as an insolvent. His Honour, on looking at the schedule, said this was a very unusual case. The debts were stated at 10,700*s.*, and property unencumbered 30,700*s.*—Mr. DUNCAN said, the principal property was a coal mine, called the Oaken and Churchway Colliery, in the Forest of Dean.—His Honour asked whether there was any opposition?—A SOLICITOR replied, that there could be no objection to the insolvent's being discharged out of custody, but the question was, what could be done with the property?—Mr. DUNCAN said, that the insolvent proposed to pay his debts in two years, if the mine was worked under his direction, or it could be leased for 200*s.* a year at the least.—His Honour said, that in this case it was very requisite that a trade assignee should be appointed; and, in order to give all the creditors an opportunity of considering the matter, an intermediate meeting ought to be held, and notice should be given in the *Gazette*.—Mr. DUNCAN said, there was a great difference of opinion as to the mode in which the mine ought to be worked. If the insolvent was allowed to work it in his own way, it would, beyond doubt, realise at least what had been stated.—His Honour said, that, perhaps, it would be well to hear the insolvent's views on the subject before any proceedings were adopted, as the case was one quite out of the common course; and, if there were grounds of opposition, it would not be prudent to have the petition dismissed.—The case was then adjourned to the 12th of June.

MINING IN WESTERN AUSTRALIA.—Accounts received by the Overland Mail represent the copper and lead mines, discovered near Perth, as promising an abundant return on the capital likely to be invested in their excavation, without adding any thing to the notices about these ores and the coal to the northward, received by previous arrivals.

IMPROVEMENT IN THE MANUFACTURE OF RAILWAY RAILS.  
THORNEYCROFT'S PATENT ANTI-LAMINATING RAIL.

Among the difficulties which railway engineers have had to contend with, there has, perhaps, been none which has caused them greater anxiety than the lamination of the iron, of which the rails are formed, from their being piled and faggotted together, causing them to splinter off on the face, or the passing of heavy trains, rendering them dangerous and useless in a short period after being laid down, and entailing continual and heavy expense. It has long been a subject of deep thought and serious consideration, how this lamination and splintering could be remedied; for, as the traffic and the weight of the locomotive engine increases, the evil becomes still more serious, and alarming accidents have taken place from this cause.

Mr. THORNEYCROFT, of Wolverhampton, the eminent ironmaster, among many others, having been consulted on the subject, applied himself earnestly to its consideration and accomplishment, and, we are happy to say, has succeeded beyond his most sanguine expectations. Samples of the rails have been inspected by many of the most eminent railway and other engineers in the kingdom, all of whom have expressed their decided opinion of the complete success of the new manufacture. One of them, a man of great eminence in his profession, having been to the works and inspected the improved mode of manufacture, pronounced it most simple and perfect, and the greatest improvement that has been made in the make of iron rails since railways have been known; and, to use his own words, "it must prove a great national benefit, and I hope the inventor will be amply rewarded for his trouble and enterprise." In the expression of this sentiment we most heartily concur.

We last week announced, in our List of Patents, this invention, and we have since had an opportunity of closely inspecting parts of four rails, which had been broken to show the fracture of the iron at one end, while the other was polished, and an acid applied, showing all the laminae, and every seam formed by the faggotting of the iron. The following diagrams will clearly show Mr. THORNEYCROFT's improvements:

Fig. 1.



Fig. 2.



Fig. 1 represents a section of a rail manufactured on the old method, showing the lamination of the iron from top to bottom. Fig. 2 shows Mr. THORNEYCROFT's improvement, by which it will be seen that the part of the iron liable to wear away is one perfect homogeneous body, as much so as if it was cast-iron or cast-steel, still perfectly malleable as any other wrought or rolled iron, but, being jointless, is perfectly free from laminae, and not liable to splinter off on the edges. We understand the rails are about to be laid down immediately at some of the principal stations on the larger lines, where the most severe trials will be given them. The inventor appears to be quite confident that the results will prove highly satisfactory, and indeed in this there seems little difference of opinion among all who have inspected them—a few months, however, will decide, and, in the meantime, specimens may be inspected at our office.

## IRON AND COAL TRADES OF FRANCE.

In connection with the question of mineral productions, it will be seen that France, notwithstanding recent discoveries, is still greatly indebted to foreigners (principally the English) for large quantities of materials necessary for her metal manufactures. The following details concern the imports of these articles for the month of April last, compared with the two previous years:

ARTICLES.	1847.	1846.	1845.
	Mt. Quin.	Mt. Quin.	Mt. Quin.
Rough iron	76,057	89,912	54,590
Coal	2,079,800	1,667,062	2,330,127
Rough lead	16,861	13,296	14,221
Zinc	13,563	9,229	9,632
Rough tin	903	1,257	1,692
Copper	10,112	4,977	6,475

Subjoined are the particulars of importations during the first four months of the same year:

ARTICLES.	1847.	1846.	1845.
	Mt. Quin.	Mt. Quin.	Mt. Quin.
Coal	6,296,636	5,578,273	5,030,920
Rough iron	331,073	245,872	172,547
Copper	27,751	13,292	32,066
Tin	2,605	2,960	2,991
Zinc	35,400	26,568	18,688

It will be perceived from this statement, that the importations of coal and iron have considerably increased. The increase in coal during 1846, compared with 1845, amounted to 547,353 metrical quintals; and during 1847, compared with 1846, to 918,363 metrical quintals. The increase in iron amounted to 73,325 metrical quintals—comparing 1846 with 1845; and to 85,200 metrical quintals—comparing 1847 with 1846.

At the end of the month of April there were in stock 74,637 quintals of iron, 917 quintals of tin, 1829 quintals of copper, 78,506 quintals of lead, and 460 quintals of zinc. The duties paid on iron during the four months above stated, are returned at 1,826,934 frs., and on coal at 1,427,006 frs. It is remarked, that, with the exception of coffee, cotton, oil, and wool, there are no other articles which are so productive to the public Treasury.

## LEAD AND COPPER TRADES OF AMERICA.

From the peculiarly favourable location of Galena, situated, as it is, in the centre of the mining region, it is becoming, and must eventually be, the first point on the Mississippi, above St. Louis, for commerce, shipping, trade, &c. The value of articles now shipped far exceeds that from any other point on the Mississippi, between St. Louis and the head of navigation.

SHIPMENTS OF LEAD FROM THE UPPER MISSISSIPPI.	1841	1842	1843
	Pigs 463,400	1644	Pigs 634,601
	473,599	1845	778,500
	584,131	1846	672,420

The greatest amount shipped in any one year was in 1845, being 54,496,000 lbs., which, at the average value in New York, would be worth \$2,345,194.

SHIPMENTS OF COPPER FROM THE UPPER MISSISSIPPI.	1842	1843	1844
	Lbs. 95,000	86,000	Lbs. 95,000

In 1845 amount not known, but has probably largely increased; the annual export of copper is in value about \$22,000.

There are, at this time, 49 furnaces in Jo Daviess and Iowa counties—turning out an average of 70 pigs per day each, or an aggregate of 3,830 pigs of 70 lbs.—making 240,100 lbs. of lead per day. Lead on hand, to be shipped at the opening of the navigation, estimated at 178,500 pigs.—*New York Herald.*

THE LATE MR. JAMES MARSH.—This talented and indefatigable chemist, who was employed for 40 years in the Royal Arsenal, and whose name will ever be remembered, from the discovery he made, and published, of the process for the instantaneous detection of the minutest portion of arsenic, at his death left a widow, who is now, we regret to learn, in a delicate state of health, and great destitution. The Board of Ordnance—and, shameful it is to the Government—have no provision for surviving relatives of those employed in that department at their disposal, unless they are killed while in the actual discharge of their duties; and thus this poor widow, after 40 years of her husband's most scientific and beneficial services, is thrown upon the cold charity of the world. Some few friends are now making an appeal to the public, in hopes of raising a sufficiency to extricate her from her present difficulties, and place her beyond future want. We trust they may meet with the success the merits of the deceased deserved.

## PROGRESS OF FRENCH MINING INDUSTRY.

[FROM OUR PARIS CORRESPONDENT.]

Some time ago, the Minister of Public Works nominated a commission to examine into the questions raised by the amalgamation of so many of the coal companies of the Loire into one concern. The commission has just terminated its labours by declaring that there is nothing illegal in that amalgamation; but that the guarantees offered by the company (they were the fixing of a maximum of the selling price of coal, and of a minimum of the miners' wages), were not such as to warrant the Government in converting it into a *société anonyme*. The commission recommends that measures shall be brought forward to supply all the deficiencies in the existing law, which prevent the Government from having a complete control over the company.

About two months ago, you will recollect that I informed you that the Municipal Council of St. Etienne had authorised the mayor to take measures for prosecuting the company before the tribunals for having infringed the articles of the penal code, relative to coalitions. The intermediate formalities of the French law, required that this decision, to have any effect, should be sanctioned by what is called the Council of Prefecture, which is a body that may be likened at an immense distance to one of our county grand juries. The council, after a good deal of deliberation, has refused to sanction the demand of the Municipal Council. The great company is, therefore, saved from the annoyance of legal prosecution by an important public body. There is, however, you will remember, a case pending before the Lyons Court—the object of which is to procure the dissolution of the company; the complaint, in this case, is made by some discontented shareholders of the company itself.

It was stated, some time back, in the "Paris Correspondence" of the *Mining Journal*, that the Company of the Chaney Coal Mines intended to amalgamate with the Great Loire Company—that design has since been formally carried into effect. The company has declared itself dissolved from the 31st of March last, ordered its affairs to be wound up with all dispatch possible, and nominated a committee to carry into execution the verbal conditions agreed to, for an amalgamation with the Loire Company.

It appears that the profits for 1845, of the Company of the Haut Fourneaux du Nord, were 584,201 fr. 23 c., of which 115,000 fr. were carried to the reserve fund; 5 per cent. interest, and 9 per cent. dividend, were ordered to be divided among the shareholders.

The annual meeting of the Company of the Fonderies et Forges d'Alais is called for the 19th of June.

The Government has several mining engineers in Morocco, employed in examining into the mineral resources of that country. If any valuable coal pits should be discovered lying handy to the Algerian territory, an excuse would, no doubt, soon be found to bring that poor devil, the Emperor of Morocco, into a war, and to wrest from him the district in which the pits might be situated. But, thus far, nothing has occurred to show that Morocco is much richer in coal and ores than its sister Algeria. A few months ago, indeed, there was a great deal of talk about its mineral wealth; but it appears that there was as much real foundation for it, as there is for all the chatter we hear, and all the scribbling we read, about the mineral wealth of Algeria.

The *Journal des Chemins de Fer* announces the formation of a company under the name "Compagnie des Locomotives Perfectionnées," the object of which is to bring into trial new inventions in locomotives. Its first essay will be on a system comprising three pistons, acting on the same axle, with three independent cylinders. The capital of the company is fixed at 40,000/, in 2000 shares.

Some time ago, the shareholders of the Chazotte coal fields transferred the concession of the pits of Treuil to the Loire Company. As payment for this, they are now receiving one share of the Loire Company for every two of the Chazotte Company.

A meeting of the Charbonnages Belges Company will be held in Paris on 31st July, to deliberate on the propriety of raising a loan, the necessity of which was demonstrated to the shareholders at the recent annual meeting. A dividend of 12 fr. 50 c. per share, which was fixed at the annual meeting, is now being paid in Paris.

The usual weekly letter from St. Dizier says—"The situation of the furnaces is far from being improved. Affairs are absolutely null; all that is said to the offers made by the travellers, and as to the pretensions of the holders, is, in our opinion, very apocryphal, and, we may say, imaginary—no bargains are entered into. A decline will take place, but the amount of it is not known; at least, such is the conjecture. What is certain is, that there is now a panic which has not been equalled, and that after a year of scarcity and misery, which has put a stop to all buildings in the provinces. But the growing crops present a favourable appearance, and when the harvest shall be got in, buildings, &c., will be resumed, and activity given to trade. Some large bargains have been made by speculation in *fentes moulées*. It is probable that they have taken place at 40 fr. or 50 fr. decline; and that when the furnaces that are embarrassed shall have placed all they have, affairs in that description will resume their ordinary course." The amount of decline here mentioned—40 fr. or 50 fr.—seems excessive, and I am almost inclined to think that there must be a mistake.

The *Journal des Chemins de Fer* says, that the silver mines of Kongsberg, in Norway, yielded, in the first quarter of the present year, 10,700 marks of pure silver, which were sold by public auction to the Bank of Denmark for about 22,128/. This quantity was greater by  $\frac{1}{3}$  than the yield of the corresponding quarter of last year.—*Paris, Wednesday.*

BELGIUM.—In the month of April last Belgium imported 1510 tons of coal, all of which came from France. Her importations of coal for the past four months of the present year have amounted to 3714 tons; in the same period of 1846 they were 3789 tons, and of 1845 3552 tons. I have more than once referred to the ever-increasing exports of different descriptions of arms that are made by this country. The returns of exports show that the progress is continual. In April of this year they amounted in value to 384,604 francs; whilst in April of last year they were only 280,950 fr.; and in April of 1845, 306,350 fr. Of the 384,604 fr., the Zollverein took to the amount of 91,730 fr.; France, 72,080 fr.; the United States, 24,590 fr.; Brazil, 41,261 fr.; Turkey, 10,470 fr.; the Netherlands, 8701 fr., and other countries. I think these facts are well worthy the attention of your readers, especially those of Birmingham and Sheffield—for they show that, in the manufacture of arms Belgium is becoming a rival that should not be despised. It must not be supposed that the large exports of April last arose from accidental causes, for the returns show that the total exports in the first 4 months of 1847, were 1,278,111 fr.; of the same period in 1846, only 965,259 fr.; and in 1845, only 817,702 fr. They show, too, that the quantities exported in April to the different countries named were rather *under* the usual monthly average. In April last other exportations were as follows:—Coal, 168,667 tons—almost all of which was sent to France and the Netherlands, especially the former; cast-iron in *guesées* and *épurée*, 8338 tons to the Zollverein and France; rails, 1161 tons to the Zollverein; worked cast-iron, 129,628 kilos. to the Zollverein and Netherlands; works in *fers battus*, 84,345 kilos. to the Netherlands and the Zollverein; nails, 635,799 kilos. to the Netherlands, the Hano Towns, Austria, Turkey, Brazil, and other places; machine works in iron, 123,909 kilos. to Russia, the Zollverein, the Netherlands, France, and other places (for these articles Spain and Austria are also good customers to Belgium, though they did not happen to purchase in April); detached pieces of machines, 120,583 kilos. to the Zollverein, the Netherlands, and other places; raw zinc, 739,279 kilos., the greater part to France; zinc *lamé*, 224,424 kilos., the greater part to England (France, the United States, the Netherlands, and the Hano Towns, also take large quantities.)

These details will give your readers an idea of the directions in which the foreign branches of the metallurgical industry of Belgium are developing themselves, and would, I should think, enable them to take measures to counteract Belgian activity, or, at the very least, prevent it from supplanting English products. The returns of the exports made during the first four months of 1847, 1846, and 1845, are as follows:—Arms—1847, 1,278,111 fr.; 1846, 956,259 fr.; 1845, 817,702 fr.: coal—1847, 496,251 tons; 1846, 365,031 tons; 1845, 351,982 tons: cast-iron, in *guesées* and *épurée*—1847, 32,723 tons; 1846, 21,306 tons; 1845, 11,481 tons: rails—1847, 2133 tons; 1846, 2039 tons; 1845, 594 tons: cast-iron, *ouvrée*—1847, 180,138 kilos.; 1846, 69,124 kilos.; 1845, 76,049 kilos.: works in *fer battu*—1847, 335,071 kilos.; 1846, 183,453 kilos.; 1845, 479,605 kilos.: nails—1847, 2,335,589 kilos.; 1846, 1,703,006 kilos.; 1845, 227,872 kilos.: machines, complete works in iron—1847, 474,333 kilos.; 1846, 503,345 kilos.; 1845, 394,715 kilos.: machines, detached pieces in iron and cast-iron—1847, 258,243 kilos.; 1846, 87,289 kilos.; 1845, none: zinc, raw—1847, 1,886,033 kilos.; 1846, 1,096,156 kilos.; 1845, 1,533,134 kilos.: zinc, *lamé*—1847, 633,947 kilos.; 1846, 463,208 kilos.; 1845, 391,163 kilos.

The Company of the Charbonnages du Tiers Fourneau des Environs, at Seraing, will pay 45 fr. per share for 1846, on and after the 15th July next. This sum is a "dividend," and is in addition to the 50 fr. per share interest paid in January.

The Grande Montagne directors notify that they require the third call of 250 fr. per share, to be paid before the 1st of July next.

The Minister of Public Works has just caused to be published a statistical account relative to mines and metallurgy from 1839 to 1844. I shall have occasion to make quotations from it. In a brief report to the King, which precedes the work, the Minister states that, from 1840 to 1844, not fewer than 775 accidents occurred in mines, occasioning

## Original Correspondence.

## IMPORTANCE OF MINERAL ANALYSIS.

SIR.—I am glad to see that, at last, the importance of a strict examination of the mineral matters raised in this country is beginning to be felt and publicly expressed, by those most interested in the matter. This is evident from the remarks in your "Mining Notabilia," of last week, on Herland Mine and Wheal Tremayne, and only bears out that which I have repeatedly urged to all connected with mining or metallurgical operations—viz.: that every ore, or other substance, raised or employed, the exact nature of which is not understood, should be submitted, not merely to an assay, but to a strict analytical examination, in order that the whole of its constituents may be known; and then it will be perfectly evident, to every one connected with the concern, whether the substance so examined may be rejected as useless, or be turned to some very profitable account. The same rule holds good with our manufacturers' waste products, as many of them contain substances which would not only pay for their treatment, but would yield a handsome profit to the parties, who would have so far broken through the rules of established usage, as to have submitted them to the examination of the chemist.

The province of the assayer is, to a certain extent, exceedingly limited, he merely having to assay a stone for lead, copper, silver, or any other metal, as he may be instructed—so that it is quite evident that, if an ore be sent to him to assay for copper, he assays it for that metal only, and there the knowledge of its contents is ended, as far as the assay is concerned; yet that stone may be rich in gold, silver, cobalt, or some other metals, and the assay may yield so little copper, as to render it useless as a merchantable article—the consequence is, that more is not raised, or if it be raised, in order to arrive at some other substance, it is thrown away as refuse; and hence some concerns, which would, if properly worked, be exceedingly profitable, swallow up immense capitals, and ruin all connected with them, merely on account of the want of knowledge of the nature of the substances raised. Iron and other pyrites are, in many cases, successfully worked for the precious metals; yet, in this country, that mineral is seldom, or ever, employed, excepting in the manufacture of arsenious and sulphuric acids, and that only within these last few years; but very many of the samples I have seen contain both gold and silver. Again, antimonial, cobalt, and chrome ores are met with in this country; yet how seldom is the existence of either of their metals suspected, still less proved? I have known many instances in which the above has been the case; and yet those parties, who are the most interested in the matter, are generally the last to attach any importance to such an examination, as that which I have so often recommended. I hope, however, that other parties will read the remarks I alluded to at the commencement of this communication, and which caused me to trouble you with the above, with the same pleasure, and the same conviction of their truth.—J. MITCHELL: *Hawley-road, May 31.*

## HYPOTHESES ON IRON.

SIR.—That the difference in white iron and grey is in the carbon of the latter, crystallising out in graphite, consists with facts, and may be received as an explanation, better than a mere notion of quantity, of the great differences in a furnace working on grey or white iron. The idea, that a furnace of grey iron is in that state which prepares graphite, explains at once the remarkable transition of appearances which ensue on a passage to white metal. In reference to such a solution, I asked the constitution of the carburets, which are combined in pig-iron. If white iron be the point of maximum saturation, or alloy, with a certain carburet, it may be supposed that the continued presentation of carbon disturbs the combination, by altering the constitution of the carburet; and the passage through mottle to grey ensues. The explanation of the cause of grey iron cooling white in small masses, consists also with facts; for grey iron takes several minutes longer to solidify than an equal mass of fluid white, and the causes are convertible—for if the combination, mechanically, of graphite produces a slow cooling, so slow cooling rendered impossible, the graphite has not time to crystallise, and the iron is white. The point over which doubt yet hangs is, if *similia similibus*, the maximum point of saturation with carbon is to be discovered in white iron? I should like to know the exact construction, or components, of the crucible Mr. Mitchell details to have used. I have not Karsten; but Dr. Ure states the grey iron to have been formed by fusion in a black-lead crucible. If this means a common Hessian crucible, I can affirm distinctly grey iron will not be the result. White iron, fused or cemented with an adequate quantity of charcoal, undoubtedly becomes grey; but the apparent meaning of Dr. Ure's passage is, that a fusion of white iron, with consequent loss of carbon, converts it to grey. This would be decidedly erroneous, as every succeeding fusion of iron produces increase of those characteristics of approach to malleable iron, which are habitually in the trade explained by the loss of carbon. I make no pretension to be a practical chemist; the position of an ironmaster is incompatible with the pursuit. So complete an education, and constant devotion of time, is required in the present state of science to attain any accuracy in analysis, that the attempt to combine extreme pursuits must be an unwise neglect of division in labour—inconsistent with a commanding place in either calling. I have observed those who attempt to unite them fail in a great measure in both. I have some acquaintance with ores and carbon in the dry way; and should desire greatly to see it established as a positive law, that heating carbon with carbon produces graphite. I have never seen it occur, and it ought constantly to present itself in a steel cementing-furnace. What I have seen is carbon under heat assuming a deeper black, and more removed from the lustrous aspect of graphite. I should like Mr. Mitchell to add some more examples to the solitary one he has adduced. I think the instances of irregular combination of carbon as to quantity, tend only to throw additional doubt on the belief, that white iron is the maximum compound. Mr. Mitchell admits, in the cases I noticed, that the white iron produced must contain less carbon than the grey iron made use of. But this is the admission of no singular exception, but of the whole practice, on which the manufacture of bar-iron is conducted. By one, or both, of the processes I named, or by a combination of them, pig-iron has, for more than a hundred years, been deprived of carbon and malleabilised. It will follow from this that some white irons, containing more carbon than some grey irons, is the exception, and not the rule. The surest test is to analyse, first, a sample of grey iron; then metal from the same cast only half refined; a third, perfectly refined; and lastly, high-blown metal. These four specimens will exhibit the progressive changes conclusively as to proportions of carbon. I shall take an opportunity of forwarding Mr. Mitchell such specimens; and if other ironmasters do the same, we will have materials for an incontestable conclusion. I have, in habit, attributed the difference between refiners' metal and white iron of the furnace chiefly to the intense temperature, which produces the former, and causes more complete and sudden crystallisation in cooling; but if those who have several furnaces, working from the same stock upon different qualities of iron, forwarded specimens of each, still more completeness would attend the result. All the grades of finers' metal must be absolutely prepared without admixture from the same cast of grey iron. Mr. Mitchell's samples I shall take the first opportunity to see; the practised eye can gain more information on quality in five minutes than by pages of argument. I wish to recur to a statement of Mr. Mitchell some time back, that the metallic alloys he has detected, do not exist in the ores; this I do not clearly understand. All ironstones used in this country (primary ores are more simple) contain at least the three principal earths. How, then, does Mr. Mitchell ascertain that the alloy does not exist in the original constitution? It seems most probable, these highly-oxidisable metals should be derived from the *ingesta* of the furnace most intimately in contact with the iron; the next source of their alloy will be to consider them metalised in the ashes of the carbon, and absorbed with it—while the last, and most difficult, derivation, is to suppose they are attracted from the remoter masses of limestone or flux. There can be no doubt, that we ought to investigate real, not artificial, pig-iron.—FERRERUS: *May 26.*

## FAN BLAST IN SMELTING.

SIR.—I beg to refer your correspondent, Mr. Walkinshaw, to the interesting paper read before the meeting of engineers at Birmingham on this subject, and printed in your last Number, which he has, perhaps, overlooked. I think there must be the results he alludes to. I would here (if I may be excused the request) wish that your correspondents, who think any remarks of mine worth referring to, might indicate them by my Christian initial, or name. I cannot desire the sanction of my name (trifling if it be) appended to views I do not approve; so, on the other hand, statements of mine occasionally are given to the wrong author through this inadvertence, as, for example, last week by Mr. Deakin.

Gloucester, June 1. DAVID MUSHET, Jun.

## ON THE SUPERIORITY OF ANTHRACITE IRON.

SIR.—The public have learnt with dismay the fatal accident on the Shrewsbury and Chester Railway, from the breaking of a cast-iron girder, as described in last week's Journal; and from this, and other previous accidents to iron castings employed in buildings, the use of iron for these purposes will fall into disrepute, unless the cause is ascertained and guarded against. A great many trials have been made at various times on the strength of different varieties of iron, and they have resulted in establishing the great superiority in strength and elasticity of *anthracite iron*; yet these results have only been taken advantage of by a few engineers in their specifications. It is well known, that the founders in Lancashire and Cheshire use almost exclusively Scotch pig-iron, although their trade runs very much in strong castings for beams, girders, &c., employed in buildings, yet very little Welsh iron, or anthracite, is sold in these districts; nor from the cheapness of Scotch iron will the former ever be used extensively, unless specified for. I understand, the Great Northern Railway Company have decided that their chairs shall be cast from Scotch pig-iron, mixed with *anthracite*—thus obtaining a casting combining the fluidity of the one, with the strength and fibre of the other. I have heard that the engineers of some other railways are adopting the same mixture for the castings to be employed in their bridges, &c.; and when we consider that the experiments made by Musket on bars cast from anthracite pig-iron go to establish more than 50 per cent. of strength, and as much of *deflexion*, beyond Fairbairn's results on Scotch iron, one wonders that the results of scientific experiments are so tardily adopted. The great foundries in Cornwall have, for many years, employed a large mixture of anthracite iron for their heavy engine-work, having proved it to be the strongest and soundest in the world. The large cylinder for the largest engine in existence, constructed for draining the Haarlem Lake, was cast principally of anthracite pig-iron. Hitherto, cheapness has carried the day; yet it is now evident that, unless castings can be made of a strength more to be depended on, the founders will, by a short-sighted economy, in not employing the superior metal, lose the best branch of their trade. ANTHRACITE IRON.

May 31.

## STEAM-BOILERS.

SIR.—My attention has been drawn to a letter signed "C." in your last Journal. Allow me, in reply, to state that there were several members of the Institution of Civil Engineers present at our last meeting, myself among the number, by whom Mr. Bodmer's varied talent and untiring energy are fully appreciated. I am perfectly cognisant of Mr. Bodmer's paper, read 24th June, 1845, wherein he names the pumping of hot air into the boiler a means of economising fuel; but he does not claim any originality in this—and so far as the mere conception of the plan goes, he would have considerable difficulty in establishing such a claim. If, however, Mr. Bodmer has discovered and put into operation any plan by which the numerous practical difficulties attending "the pumping of hot air from the flue into the boiler" can be successfully combated, and the saving of fuel really effected, no doubt your correspondent can inform me of the same, and at the next meeting I am sure all justice will be done to Mr. Bodmer's claims; but unless such plan be forthcoming, then I think you will agree with me, that Mr. Bodmer has abandoned the idea as practically *useless*, and that we are not called upon to discourage Mr. Wilkinson. In conclusion, allow me to assure you, that the sole object of the institution is to forward mechanical science without prejudice; and I shall at all times be ready to afford any explanation in my power to any of your correspondents who will publish their names, but I cannot again notice an anonymous communication.

ARCHIBALD STATE, Secretary. Institution of Mechanical Engineers, Birmingham, May 29.

## ECONOMY OF THE STEAM-ENGINE.

SIR.—I am thankful Mr. F. Wilkinson began, and that "C." took up the matter in your last Number, feeling a lively interest on the subject of injecting heated air into the boilers of steam-engines; and, although believing that in high-pressure engines there would result considerable economy in its use, I am still at a loss to conceive by what means Mr. Bodmer can profitably employ this principle to condensing engines. I recollect speaking to an engine maker in this neighbourhood, in the year 1810, respecting its application to high-pressure engines—thinking it a new idea, and wishing him to try it for our mutual benefit—when he informed me I was too late, that a Mr. Grazebrook had got the start of me, and had tried the scheme in Shropshire, having actually employed it even to the working of a condensing engine; but, being found liable to choke the same, it was discontinued, and, there being at that time very few non-condensing engines, it became, as I suppose, all but lost.

As it appears, by "C.'s" letter, that Mr. Bodmer is in possession of a method of condensing, or otherwise getting rid of, the air, so as not to violate the vacuum, I should be most happy to understand it; and am no less curious to know how much coal, per horse power, is saved by the process, after allowing for the power required to work the *air-forcing pump*?

Absolutely certain that any communication, having for its object either the adding to the efficiency, or promoting the economy, of the steam-engine, must be hailed with universal pleasure. Mr. Bodmer's explicit answer, in your next Journal, would oblige and delight many of your readers, besides—J. WALKINSHAW: *Coleford, June 1.*

## STEAM APPLIED TO A BLAST-FURNACE.

SIR.—Having constructed the water-regulator, and arranged the position of the blast-pipes, I beg leave to correct the following errors in Mr. R. Musket's reply to "An Old File," in your Journal of the 22d inst.—Mr. M. says—"The cold-blast from the blowing cylinder passed into a water-regulator at one side, and passed out into the stove at the other side." If this had been the case, there would have been some colour to his assertion, of water getting into the furnace; but the arrangement of the blast-pipe was designed to prevent the chance of even the vapour of the water getting there. The blast goes direct from the engine to the stove along a straight and nearly horizontal pipe, laid some few inches *above the top of the air-receiver*; and this pipe is furnished with a branch leading downwards, and screwed to the receiver—the pipe and branch resembling the letter T—so that the blast going to the stoves cannot enter the regulator, which becomes quite filled on the first starting of the engine, and so continues until it stops—acting there merely as a spring, to keep up uniformity of pressure." Again, he says—"There was too much water in the regulator." This could not be the case for any great length of time, there being a pipe so placed as to carry off any excess which might chance to occur. He further says—"At the turn of each stroke the water rose, and some of it passed into the eduction blast-pipe, and was carried by the blast, &c." Looking at the fact of the blast-pipe going direct from the engine, what does Mr. M. mean by "the water passing into the eduction blast-pipe?" If the water could possibly have got there, how came it, that there still continued to be "too much," seeing that the regulator was never supplied but at intervals, when found to require it? And yet he says, that "Some water was thus carried by the blast 30 times every minute for months!" Having shown the true position of the blast-pipe to be *above the regulator*, I next proceed to inform you, that the surface of the water usually stood 4 ft. below the said pipe while the engine was at rest—that the density of the blast was equal to a column of mercury 6 in. high—consequently, the surface of the water in the interior of the regulator would be so much more depressed. I would now beg leave to ask, by what miracle the confined air could, at the same instant, both depress and elevate the water, in order that "some of it might pass," &c.? Or, is it more in accordance with nature, to suppose that "some of the water, becoming tired of its confinement within the narrow limits of the receiver, had thrown off its allegiance to gravitation, and thus stripped of ponderosity, had joyously leapt up so many feet and inches for the mere pleasure of possessing liberty?" In conclusion, I would recommend Mr. M. to look at things before he describes them; and, by thus disabusing his own mind, I should hope he will cease to abuse those he appears to consider guilty of what in my view, seems an impossible offence. J. WALKINSHAW: *Coleford, May 27.*

## EAST OF SCOTLAND MALLEABLE IRON COMPANY.

SIR.—In the last Number of your Journal there is a letter on the subject of this company by "A Shareholder," who seems ashamed to give his name, though he evidently wishes it to be believed, that his *status* in the company entitles him to speak with authority. I do not deny that he is illiterate enough, and reckless enough, to be either the chairman, or the chairman's proxy; but he must lay aside his *incognito*, and become responsible for his statements, before I can stoop to notice him any further than simply to declare that, in so far as regards myself, his letter is, from beginning to end, a tissue of stupid, deliberate, and unvarnished falsehoods.—HENRY BEVERIDGE: *Inzever, by Dunfermline, June 1.*

## THE WASTE LANDS OF IRELAND.

SIR.—It is melancholy to reflect, in these days of dearth and destitution, that according to the estimate of Sir Robert Kane, no less than 5,500,000 acres in Ireland, confessedly available for food for man and beast, and capable of cultivation, lie entirely waste: I confess that, despite of Sir R. Peel's antagonism, I hail, with much satisfaction and delight, the intention of Government to drain hence, and cultivate, these waste lands; nor can there be a more legitimate application of the national resources. Certain it is, if Government do not adopt these measures, the question is a hopeless one, as far as the Irish proprietors are concerned. The question has other aspects than the one which has immediate reference to the *sustenance* of the sons of the soil. Drainage and cultivation will materially enhance the *health*, and improve the condition, of the Irish people. Who knows not that swamps, bogs, and wastes, are destructive to health in intermissions and other ills, consequent on malaria? The lisleness and laziness, which are its concomitants, will account for the idleness and laziness, so common a feature under such circumstances; nay, more, the *moral* complexion even receives its tinge from these morbid physical evils. Many years ago, in studying the phenomena of malaria, or marsh poisons, I was struck very forcibly with a remark made by Dr. Montfoucon in his work—namely: that he had found these infectious districts to be the cradles of every crime, and the localities where banditti were nurtured, and whence they emanated. My own inquiries and observations in the Pontine marshes, and the Mareme of Tuscany, seem to corroborate his conclusions; and IRELAND, so far from forming an exception, I fear, may be justly cited in additional proof.—J. MURRAY: *Portland-place, Hull, June 1.*

## THE ELECTRIC TELEGRAPH.

SIR.—Although the principle of the paragrade which I recommended has been partially adopted on the London and Southampton Railway, for the protection of the wires of the electro-magnetic telegraph against the action of atmospheric electricity, the vertical wires are certainly far too distant from each other to be of any service. It should never be forgotten, that the protective influence of a good conductor only extends over a circumference, described by a radius, double the length of the conductor. Various examples of mischief, occasioned by lightning on the wires of transmission, and the telegraphic mechanism, have been recorded; and I have been informed, at the telegraphic stations, that during the thunder-storm, the bell not unfrequently rings a false alarm. J. MURRAY: *Portland-place, Hull, June 1.*

## FIRES ON SHIPBOARD.

SIR.—The application of carbonic acid gas, liberated by the action of sulphuric acid on chalk, has been recommended for the extinction of fires on shipboard; its efficiency, however, is very questionable. Expanded by heat, it would fail to extinguish ignition; and, in a fierce combustion, might even be decomposed. If you pour carbonic acid gas over the flame of a candle, it is questionable whether it will be extinguished; but if poured laterally, extinction follows. Inflamed phosphorus decomposes carbonic acid, and burns therein with a lambent phosphorescent flame. Sulphuric acid, poured on common salt, would disengage a gas (hydrochloric gas) fatal to combustion; and from its avidity for moisture, &c., and penetrability, might be employed with great success in the case referred to.

Portland-place, Hull, June 1. J. MURRAY.

## BREAD.

SIR.—Her Majesty, it is said, has desired the exclusive use of bread made from "seconds' flour" in the Royal household. Assuredly, there is sound philosophy in this, as there can be no question as to the very superior *nutritive* properties of bread made from "seconds' flour." Very much that is wholesome and highly nutritive is abandoned, on the rejection of the bran; and an extract from it added to the dough would materially improve the bread. I must, however, be understood as entirely inimical to what is called "unfermented bread." I have examined this season, in various localities, many samples of flour—Dantzic, American, and English. In the *finest* flour obtained from Dantzic wheat, the proportion of gluten was not only minute, but in a state of loose aggregation, and so with that from English and American wheat—while the gluten from the "seconds" flour of all of them not only greatly exceeded in quantity, but was infinitely more plastic and cohesive. J. MURRAY: *Portland-place, Hull, June 1.*

## ACCIDENTS IN COLLIESIES—DR. CLANNY'S LAMP.

SIR.—In this communication, I beg distinctly to state, that I have no intention to detract from merit where merit is justly due. However, observing in your Journal of April 3d last a letter from Dr. Clanny, naming several collieries in such a manner, as to imply that his lamp was in general use in all of them, I wrote to my agent, to inquire if this was correct, to which I have a reply in the negative. Therefore (without wishing to detract, &c., &c.), I beg to observe, that I consider the mention of these collieries by Dr. Clanny without due authority, an unworthy mode of bolstering up the pretensions of the lamp, as well as the qualifications of the doctor, only to be equalled by the impudent puff of a quack, and not that of a professional man, as I took Dr. Clanny to be. I now, therefore, call upon him to produce before the public certificates from the agents at those collieries, where he states his lamp to be in use, both as to their value as a means of lighting, the extent to which they are used, and their actual safety compared to other lamps.—AN OWNER OF ONE OF THE COLLIESIES WHERE DR. CLANNY SAYS HIS LAMPS ARE IN USE: Durham, May 31.

The writer has enclosed his name and address in confirmation of the truth of his statement: we, therefore, presume that Dr. Clanny must have been misinformed as to his lamp being used in one of the collieries named by him.]

## DR. CLANNY'S LAMP AND CRITICISMS.

SIR.—What was done by "Junius," by the author of the *Waverley Novels*, of Vivian Grey, and *Tancred*, by many authors of able pamphlets, and by almost all writers in the daily press, as well as many in the *Mining Journal*, I am not ashamed to do also, notwithstanding Dr. Clanny's charge against me. Truth requires no adventitious aid—has no personalities—and is exclusively of no place. It is as strong in the mouth of a child as in that of an united nation. It stands by itself invulnerable; and, as no authority can invalidate it, neither can any name elevate or dignify what is not truth. Writing anonymously has its advantages, as it mitigates, if not removes, personal feelings, and subdues personal vanities, to which the other mode largely administers. When Dr. Clanny becomes hypercritical with others, he should have been equally so in his own case. When a practical man employs an excusable *prosopopoeia* to the object of his profession in his affection for it, and endearingly speaks of a pit in the beloved gender, in compliance with the usage of miners, he does not show grammatical ignorance, but rather his captious criticism. As sailors so class a ship—saying, "she is a gallant bark"—so we of the mines say of a pit, "she is a splendid pit;" or higher, as astronomers say of the sun, "he is the glorious centre of the planetary system;" and of the moon, "she is the satellite of the earth."

It is curious that acute critics are frequently themselves very indifferent writers. The composition of the learned doctor is neither very elegant nor very intelligible, and abounds in great irritability, as is said professionally sometimes of the noves. A critic, also, in quoting another, is generally critically correct. He has, however, made three quotations in his little communication—two from Shakespeare, and one from me—and committed in each as many errors to suit his own purposes. I never said there was any deposition of soot on the Davy lamp, as asserted by Dr. Clanny; but on the glass of the Stephenson lamp. The Davy lamp having no glass, there could be no deposition of soot upon it from combustion. The Davy lamp, and I, are not thus to be depreciated. This learned critic should not murder Shakespeare as Macbeth murders sleep, and, in quoting him, say, "Screw your courage up to the sticking-place."—Macbeth, act 1, scene vi. Nor should he have been so ignorant of the great British classic as to quote him thus:—"Let the galled jade wince, our withers are unstrung."—Hamlet, act 3, scene ii.

It seems neither just nor right that Dr. Clanny, because he has been led into mis-statements, should attack individuals who never aided him in them; his indignation should be more properly poured out upon his mis-informants, and not upon those who correct his errors, and who, as well as himself, are labouring for "suffering humanity." This susceptibility in a wrong direction, denotes a spring of action in the doctor's mind that I respectfully recommend him to look to in time. He might be mistaken in other men's minds, notwithstanding his profession. To impugn the

motives of others is not the way to raise one's own above suspicion. The doctor's misinformation is not confined to that of Jarrow, as I learn, on further inquiry; but extends to every mine in his list. As far as I have already ascertained, Dr. Clanny's lamp is not employed in Wilton, Walker, Goaforth, Heaton, Coxbridge, Burnhope, or Southmoor, which seven pits were stated by Dr. Clanny, in the *Mining Journal*, to be employing his lamp. When Dr. Clanny can produce documents before the public, signed by the respective viewers of these pits, affirming his lamp to be employed in them as a safety lamp for working purposes, then will the public be better able to rely upon his informant's information. Truth and indubitable facts are the best supporters of suffering humanity—of an anonymous signature, as of a scientific name.

VERITAS.

May 25.

#### THE CLANNY SAFETY LAMP—DR. CLANNY AND DR. MURRAY.

SIR.—I am grieved in having been compelled to send a reply to your correspondent, Dr. J. Murray, though I find that all my friends advise me to the contrary. This communication must terminate my noticing anything Dr. Murray may hereafter write, or say, in respect to myself, or to anything appertaining to me. I will quote his words, and then refute *sic etiam*:—"I know that your correspondent has been the author of lamps innumerable." This is gross error the first—for that gentleman, not long since, animadverted upon a paper I had published, in which I frankly stated, that during the course of 30 years, I gave to the public six safety lamps—all of which had been well tried in our coal mines, and in no instance had any accident with any of them. Dr. Murray, in continuation, says—"Safety lamps were all abandoned in succession." This is gross error the second—for it is well known to all readers of the late Numbers of the *Mining Journal*, Dr. Murray included, that I published the names of 29 coal mines, in which my new safety lamps had been, and are, in use; and from none of these collieries have I ever received one word of objection to them—but, on the contrary, I had the satisfaction of receiving, very frequently, kind and encouraging congratulations of several viewers and underwriters concerned in these mines. Dr. Murray has the hardihood to put the following sentences:—"I only know, that the one tried (viz., my safety lamp) before the Commons Committee proved a failure." This is gross error the third, as the following facts will prove:—It so happened, that about the hour of meeting in the lecture-room of the late Dr. Turner, in the London University, a few friends arrived at my hotel. As soon as I obtained liberty, I posted off to the lecture-room, in which were assembled the committee, Dr. Pereira, and several other men of science. A person, named J. Roberts, volunteered to trim my safety lamp; as he had been formerly a pitman, I readily consented. The chairman now proceeded to put the following query to Mr. S. J. Fitzgerald, the short-hand writer—query 4183:—"Have you taken down a list of the different lamps on which experiments are to be made?"—"Yes, I have."—No. 1. The Davy-lamp.—No. 2. Ditto, with different seams.—No. 3. Dr. Clanny's new lamp.—No. 4. Stephenson's lamp, with glass.—No. 5. Mr. Ayre's Newcastle lamp.—No. 6. Robson's Bolton lamp.—No. 7. Refrigerating lamp.—No. 8. Dillon's lamp, with a shield of tale surrounding it.—No. 9. Upton and Roberts's lamp. My reply to the hon. chairman at the meeting, explained the *modus operandi* in the safety lamp, to which Dr. J. Murray alludes—(vide query 4236). "The principle of this safety lamp is simply, that the moment the inflammable air is admitted to it the shield descends—the piece of wire is fused, and the shield descends, so as to isolate the whole wire cylinder, in respect to the surrounding atmosphere." Dr. Pereira tried my safety lamp, and all the others, with what was denominated "a high test"—viz.: a stream of inflammable gas was made to play upon each safety lamp in rotation, composed of three or four parts, by measure, of hydrogen gas (pure), and one part also, by measure, of coal gas. Such a mixture was never discovered in any of our coal mines. Men conversant with science would expect, that such a stream of gas must pass through any safety lamp, with open apertures, parallel with the flame of the oil lamp; and such was the case with all of the lamps, with one exception—viz., Upton and Roberts's lamp, from the fineness of the wire gauge employed below the flame of that lamp. The hon. chairman:—"You have got the lamp before you upon the principle of Dr. Clanny." In reply, Dr. Pereira explained how the lamp worked, in words nearly the same as quoted above. Query 4243, by the distinguished chairman—"Will you please to proceed to place Dr. Clanny's lamp burning in such a composition as you presume, from what you have heard, is ordinarily found in mines in an explosive state?" The doctor's reply was—"With the permission of this committee, I will first subject this lamp to the same mixture which I have tried on the other lamps—namely, four measures of hydrogen, and one of coal gas." ("The experiment was tried—the flame instantly passed.") Query 4245:—"What the committee wish to know is, whether the mechanical contrivance of the shield will act." (Dr. Clanny, on examining his lamp, objected to any further experiments being performed on it, on the ground, that the lamp had not been properly prepared for the experiment.) In stating these facts, I wish to add another. J. Roberts (the partner of Upton, in a patent for their safety lamp, which, as far as I can ascertain, was never called into use in our northern coal mines), being formerly a pitman, told me that he would prepare my safety lamp for Dr. Pereira's experiments, to which I consented, as I had walked quickly to the lecture-room. When I withdrew my safety lamp, as mentioned above, I had most cogent reasons for doing so; for, upon examination, I discovered that J. Roberts had accidentally taken up a piece of very strong wire, laying beside Mr. Ayre's lamp, quite infusible, in lieu of a piece of very fine and fusible wire, which I had placed in the bottom of the box, containing my safety lamp about to be experimented upon. "Mark, how simple a tale shall put him down." Again, Dr. Murray goes on in the following words:—"Where the wick is supplied with air from above, as in the lamp of Muesseler, my objections are simply those urged by the South Shields Committee." Now, what is the fact? The above-named committee give me every credit I desire in respect to my new safety lamp, and show that I had a priority over Muesseler, by many months. This is gross error the fourth. I need not trouble you in commenting upon the mistake, which we find in the report upon the evidence taken before the committee, at page 8, in favour of Upton and Roberts's lamp. "He that runs may read." I bear no complaints from the coal mines, in respect to precipitation of soot upon the inner surface of my strong glass cylinder; and had such taken place, I should of a surety have heard of it from one authority at least. As to the Muesseler lamp, I know not whether a precipitation takes place upon the inner surface of his thin glass cylinder or not; but this I know, that it is a clumsy lamp, with a strong metal chimney within the wire cylinder, &c. I will tell Dr. Murray, that I never contemplated coercing any man, especially our industrious pitmen; and were such an idea to enter into my mind, the Jarrow Pit would be the last upon which I would try such assumed power, as may be learnt from my last communication to the *Mining Journal*. Dr. Murray is at his old boasting about mica—by-the-hye, he, in his evidence, before the above-named committee, uses the word "tale" only; and it is worthy of remark, that his method of ventilating coal mines, "by a system of tubes—one system connected with the roof, to carry the heated air from the superior stratum of the mine, and the other to bring down a current of heavy air, to replace that; but, in order to accelerate that ventilation, I should have the upper surface of the tube connected with the roof of the mine, entering a brazier of ignited coke, or charcoal," &c., &c. *Résumé technico-mécanique p. 237* of the said minutes—(query 3197). Further, and equally laughable, is the description of tubes, or pipes, which Dr. Murray recommends (theoretically, of course, for we never hear that he makes any experiments), to ventilate our coal mines—(vide query 3203). "I should employ what is called Hancock's, or elastic India-rubber tube. I would connect this tube with the floor of the mine, and extend it to the farthest extremity of the working, wherever that may be. It is so very flexible, that it could be easily bent in any direction, and carried to any part of the works." At query 3208, we have Dr. Murray's words—"The comparative expense I do not know; but I believe this tube costs about 15. 6d. a yard." In answer to the query 3209 by the very enlightened chairman, Joseph Pease, Jan. 1st, M.D., in which it is desired to know what diameter the tube for ventilation, in Dr. Murray's mind, ought to be, he sensibly remarks—"Of about an inch in diameter." Lastly, query 3210—"Well, now, if 50,000 cubic feet of air are required minutely for the ventilation of the mine, how would your apparatus answer?" "I should conceive tolerably well—the diameter might, I presume, be easily calculated." If inspectors under Government be appointed, Dr. Murray should be the inspector-general.

Sunderland, June 1.

W. REED CLANNY.

#### VENTILATION OF MINES.

SIR.—Mr. Shepherd has erred, in believing I gave him the capacity of taking Mr. Gibbons's views for his own—he perverted them. Mr. Shepherd now has copied Mr. Gibbons exactly, except his theoretical air chimney is larger than Mr. Gibbons's practical air chimney. He would have noticed, had he read Mr. Gibbons's book, his difficulty in extending these chimneys to their present size; and attention to the contents of the *Mining Journal* would have afforded him information as to their necessary size. That Mr. Shepherd should have set up in a mining district, to deliver a public lecture on ventilation, with perfect ignorance, as he asserts, what Mr. Gibbons had done in the adjoining county, and knowing nothing of the *Mining Journal* for six months past, is not at all to his credit—quite otherwise.—DAVID MUSSET, Jun. 1. Gloucester, May 31.

#### VENTILATION OF MINES—MR. G. SHEPHERD, C.E.

SIR.—Your correspondent, Mr. Shepherd, was quite right, in conjecturing that his last sketch would not be looked upon with much favour; for a more absurd scheme of positively injurious supererogation could not well have been conceived. By this new plan, it will be seen that the aid of the main upcast shaft, with its valuable capabilities, for the purposes of ventilation, is, for all serviceable purposes, discarded, and in its stead an insignificant funnel is introduced, which can only serve to strangle and obstruct the free passage of the air, where freedom from obstruction is especially required. Such a scheme has only its parallel, in that other well-known scheme, of a certain ingenious individual, who, having a large hole through his door for the cat to creep through, added thereto in his sapience a smaller one by its side, for the egress of the kittens. It would be well, if Mr. S. would inform your readers, also, how he proposes to construct his furnace at surface, with reference to the supply of air to the fire—as judging only from the crude sketch given in your Journal, I fear an effect would be produced very similar to that pointed out, as likely to result from his first propounded scheme on this subject. Some fuller directions on this point are needed, and I trust will not be withheld.

Kilburne, near Derby, June 1.

THE BLACK DIAMOND.

#### BESSEMER'S IMPROVEMENTS IN RAILWAY CARRIAGES.

SIR.—I am highly pleased, and cordially agree, with Mr. Bessemer, on the propriety of either constructing the fronts of railway carriages of a pointed form, or of attaching moveable hoods for the same purpose—namely: that they may thereby cut their way with more facility through the air, as vessels cut their way through the waters—and the extra expense will, no doubt, be soon amply repaid by saving coke. I also agree with him on the injury done to axles by contortion, produced by two fixed wheels of equal diameter running on curved lines; but, instead of making the axles in two parts, with a coupling-box in the middle, as he proposes, I would suggest that one wheel be made fast, as at present, at one end, and the other wheel, moveable on the other end of the axle, neatly fitted up on the patent plan. This arrangement would be found to effect the same object at a much less cost.—J. WALKINSHAW: Coleford, June 2.

#### RAILWAY CARRIAGE BREAKS.

SIR.—I consider Mr. Crawford deserves well of the public, for having attempted to prevent those appalling accidents which too frequently occur on railways, for want of the means to stop the trains instantly on approaching danger. This he proposes to do by a system of combined breaks; but as there appears to be great complexity, considerable expense, and some degree of uncertainty of safely connecting them to each carriage of the train, I would suggest, that skids, or slippers of iron, be attached to the hinder end of each engine, tender, and railway carriage—one or more of which may be forced down upon the rail with a screw, as occasion may require—which, in extreme cases, may be carried so far as to raise the hinder wheels off the rails. Now, as these slippers would be furnished with flanges, they would be equally safe as the wheels; and, by presenting a greater surface in close contact with the rails than the wheels could, though held fast from turning, so would they more immediately overcome the momentum, and, consequently, stop the train. The guard could screw down one where he chanced to be, and then proceed to another—while the stoker and driver would each have given full effect to those nearest to them, and then both fly to the assistance of the guard on the other carriages. Coleford, June 2.

J. WALKINSHAW.

#### ATMOSPHERIC RAILWAY—CLARKE AND VARLEY'S.

SIR.—Having inspected Messrs. Clarke and Varley's experimental atmospheric railway at Blackwall, I beg to observe, that I consider it the most perfect and practicable atmospheric tube yet brought before the public, both for simplicity and cheapness—all the other atmospheric inventions must give way to this; and I do not hesitate to say that, with this system, railways might be constructed, at little more than half their present cost. One great advantage possessed by the atmospheric system over that of the locomotive, is that it can be worked by water-power; now, there are already several railways in Europe, running from 60 to 70 miles parallel with rivers, where the fall of water is very great, as, for instance, the Austrian Imperial Royal States Vienna and Trieste Railway—part of which is already opened from Mürzschlag to Grätz, a distance of 70 English miles—the line of railway and the River Mur both traversing the same beautiful valley. The fall of water between Mürzschlag (perhaps, that the moment the inflammable air is admitted to it the shield descends—the piece of wire is fused, and the shield descends, so as to isolate the whole wire cylinder, in respect to the surrounding atmosphere." Dr. Pereira tried my safety lamp, and all the others, with what was denominated "a high test"—viz.: a stream of inflammable gas was made to play upon each safety lamp in rotation, composed of three or four parts, by measure, of hydrogen gas (pure), and one part also, by measure, of coal gas." Such a mixture was never discovered in any of our coal mines. Men conversant with science would expect, that such a stream of gas must pass through any safety lamp, with open apertures, parallel with the flame of the oil lamp; and such was the case with all of the lamps, with one exception—viz., Upton and Roberts's lamp, from the fineness of the wire gauge employed below the flame of that lamp. 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#### ATMOSPHERIC RAILWAYS—PILBROW'S SYSTEM.

SIR.—Samuda's system of atmospheric traction having proved itself, beyond all doubt, a complete failure, and the hopes entertained of it, even by its most strenuous advocates, being entirely at an end, now is the time to look around, to see if there be any other system of that kind, which promises more favourable results, and, if so, to examine into its merits. We are led, some time since, to expect great things from Pilbrow's system, which, if it were to fulfil all that it promised to do, would meet and obviate the objection which has been the cause of failure in Samuda's—viz.: the long valve—*hic illa lacryma*. How is it that Pilbrow's Atmospheric Company, who undertook to carry out the former method, should remain perfectly passive and inactive, and let so favourable a crisis as the present pass, without taking any advantage of it. The merits of this plan ought now to be tested, and proved beyond all contradiction, for that the atmospheric system (as far as the public is concerned) is superior in principle, and may be proved so in practice—if we have it in its best form—is a fact which has been proved and established.—MONITOR: Shoreditch, May 29.

[We believe Pilbrow's Company is defunct, except that certain law suits are pending. We recommend our correspondent to go and see Clarke and Varley's resilient atmospheric railway, at work on the Blackwall line, Poplar station, every day, which is pronounced as perfectly successful, and is simplicity itself.]

[To be continued in next week's *Mining Journal*.]

#### RECENT AMERICAN PATENTS.

[From the *Journal of the Franklin Institute*.]

For an improvement in Pistons for Pumps, Steam-engines, &c., called the Rolling Segmental Frictionless Piston: D. Hindman, Brunswick, Medina county, Ohio, March 7. This invention consists in substituting for the metallic, or other packing, and the hinged flap, the rolling of metallic or other hard substances on each other, by making the piston of three, four, or more triangular parts, turning on rounded edges along the outer faces of the triangles, the outer faces being made in the form of segments of cones, and rolling on each other when moved together in the same direction—all the segments being jointed to one piston or connecting rod. The effect of their vibration will be similar to the working of a flap or a bellows.

Claim.—"What I claim as my invention and desire to secure by letters patent, is composing a piston of three or more segments, rolling on each other as they vibrate together, each on a separate axis, along or near to the outer edge, substantially as herein described."

Process for procuring White Rosin and a pure White Spirit of Turpentine from raw Turpentine; Nicholas U. Chaffe, Charleston, South Carolina, March 14.—The patented says—"The nature of my invention consists in the application of steam generated from water in a common boiler, and conducted by wood and metal pipes into a wood still containing gum, which causes the spirit to rise and pass through a metal heater contained in a second wood still, and from thence to a worm, or condenser, from which is produced a pure white spirit of turpentine. After the spirit is off, the gum, or white rosin, is conducted into a metal vessel, under which a slow fire is kept, until the water is evaporated, when the rosin is transparent or crystallized."

Claim.—"What I claim as my discovery, and desire to secure by letters patent, is the manufacturing of white rosin and white spirits of turpentine from the gum of pines, either dip or scrap, by the application of steam generated from water, in a common boiler or still, and conducted through wood or metal pipes into a wood or metal still, mixing with the gum, and then passing through a metal heater, as herein described."

Improvements in Carriages: S. Fairchild, Trumbull, Connecticut, March 14.—Instead of the usual perch and elliptic springs, and the fifth wheel on the fore axle, the fifth wheel is placed midway between the two axles, and the half of semi-elliptic springs extend from the rear axle to the lower plate of the fifth wheel, and in like manner from the fore axle to the other plate of the fifth wheel; and the former of these plates is also attached to the middle of reversed elliptic springs, the ends of which are secured to the carriage body; the whole constituting the springs and perch.

Claim.—"What I claim as my invention, and desire to secure by letters patent, is the combination of the fifth wheel and springs, and stays suspended between the axles under the bodies of carriages, in the manner and for the purpose herein set forth."

Improvement in the method of Transporting, Washing, and Separating Coal: John G. Brant, Cumberland, Maryland, March 14.—The broken coal is carried down an inclined shoot by a current of water, and this shoot is provided with branches and grates, so that the largest lumps, which are arrested by the first grate, pass into the second branch: the next size is like manner, into the third branch; and so on, to the end; the water at the same time washing the coal, and carrying off the dirt and other impurities.

Claim.—"What I claim as my invention, and desire to secure by letters patent, is conveying, washing, and separating coal simultaneously, by a current of water, in the manner above described, or other mode substantially the same."

Improvements in the Centrifugal Pump: W. D. Andrews, New York, March 14.—These improvements are applied to the rotary pump that acts on the water by centrifugal force, and their nature will be clearly understood by reference to the following:—

Claim.—"What I claim as my invention, and desire to secure by letters patent, is the combination of the following parts, as applicable to the raising of water and other fluids, either alone or with an admixture of sand, gravel, or other substances. 1. The vanes either straight and placed at right angles to each other, not radiating, but proceeding from the center straight and placed at right angles to each other, not radiating, but proceeding from the center of an enlargement, increasing in depth as they approach the shaft, or curved, proceeding from the center, and increasing in depth as they approach the shaft. 2. The hollow cones inclosing the vanes and revolving with them.—3. The joint formed by the ribs attached to the short pipe connected with the lower half of the revolving case, working within the stationary pipe attached to the outer case.—4. The spiral passage of discharge constantly enlarging towards the exit."

Improvement in Fan Blowers: J. P. Smith, Orangeburg, Rockland county, New York, March 14.—Claim.—"What I claim as my invention, and desire to secure by letters patent, is the combination of the various elements enumerated as entering into the construction and working of fan blowers, operated by auxiliary engines, for supplying the blast to the furnace of steam boilers, which elements consist of the increased diameter of the fan blower, and putting the fan directly on to the crank-shaft of the auxiliary engine; the combination of these two elements being essential to the end contemplated and attained by my improvement and invention, as above described."

Improvement in the Rotary Centrifugal Pump: W. H. Johnson, Springfield, Illinois, March 21.—This pump consists of two or more disks on a vertical shaft, working in a case formed with a compartment for each disk, by rings that extend inwards to within such a distance of the shaft as to leave a passage for the water. The lower face of each disk is provided with radial or curved ribs, or paddle plates, and the under surface of the rings or partitions of each compartment is armed with radial partitions or ribs. The ribs or paddle plates, by the rotation of the disks, act on

## THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE.

**RAILWAY CALLS FOR JUNE.**—The total amount of calls by railway companies, payable in June, is £2,864,485, which is thus made up.—Calls by English companies, £1,037,735; calls by Scotch companies, £3,000; calls by Irish companies, 193,750; calls by French companies, £500,000.—making a total of £2,864,485. There is a very general dissatisfaction expressed against railway directors pressing for calls in this season of monetary distress. We cannot admit, however, that shareholders have any just cause of complaint, when all circumstances are taken into due consideration.—*Irish Railway Gazette.*

## TO RAILWAY AND ELECTRIC TELEGRAPH COMPANIES.

BY HER MAJESTY'S ROYAL LETTERS PATENT.

## REID'S PATENT PREPARED WIRE FOR ELECTRIC TELEGRAPHS, WIRE ROPE, AND FENCING.

The ADVANTAGES attending this WIRE are—

1. That it may be of any length.—2. That it is of uniform size, and, when annealed, is of one uniform degree of softness.—3. That it is prepared for being galvanised by a process which leaves it wholly uninjured.

Hitherto it has been the practice, in cleaning wire to prepare it for the galvanising process, to immerse it in sulphuric, or nitric, acid, by means of which the wire has been much injured in its structure, from the acid not acting equally on all parts alike. By the new process this is entirely obviated, and the zinc coating is found to be more perfect.

For further particulars apply to the patentee, at 25, University-street, London, where specimens may be seen, and all orders will receive immediate attention.

CONTRACTS entered into and executed with promptitude.

**ELECTRO GALVANISM—PUBLIC NOTICE.**—WHEREAS, amongst a variety of important improvements in the application of electricity to TELEGRAPHHS, and other useful purposes, for which we have obtained Her Majesty's Royal Letters Patent, is a certain HYDRAULIC BATTERY, so constructed as to maintain a perpetual ingress of pure exciting liquid, while that which has become vitiated is subject to immediate ejection—and, whereas, his Honour the Vice-Chancellor of England has granted an injunction restraining the ELECTRIC TELEGRAPH COMPANY and CHARLES MASSI from the use of a battery formed on a similar principle, in violation of our Patent right duly established—

**THIS IS TO GIVE NOTICE,** that all parties whatsoever, whether private individuals or public bodies, who shall make or use, FOR ANY PURPOSE WHATSOEVER, a battery, or other apparatus, regulated on the like principle, without our express license and consent, will be immediately proceeded against for such infringement. We avail ourselves of this opportunity of disclaiming all connexion with any printing telegraph.

BRETT &amp; LITTLE.

## IMPORTANT TO ENGINEERS, MANUFACTURERS, RAILWAY AND STEAM-BOAT COMPANIES.

Messrs. W. & C. MATHER beg to call the attention of the ABOVE PARTIES to their IMPROVED PATENT ELASTIC METALLIC PISTONS. THE PRINCIPAL FEATURE and ADVANTAGE of THIS IMPROVEMENT is—

1. Its great ELASTICITY and SELF-ADJUSTING PROPERTIES, which enable it to yield to any inaccuracy of the cylinder, whether oval or taper, and to move with the least possible friction.

2. Its extreme SIMPLICITY and LIGHTNESS, consisting of only two pieces of metal, having the vertical and lateral pressure in due and proper proportion, independent of each other.

3. It takes the LEAST possible SPACE, and is well adapted for air and water-pumps, as it allows of a larger water way.

Messrs. W. & C. MATHER feel confident that it is the BEST ELASTIC METALLIC PACKING yet known, for the above reasons.

Models may be seen at the Salford Iron-Works, Manchester; at W. Barker's, engineer, Newton-Moor; and also at J. Mather's, engineer, Beaumont-street, Chelsea, London.

## IMPORTANT TO RAILWAY AND STEAM NAVIGATION COMPANIES, MANUFACTURERS, AND ENGINEERS.

W. BROTHERTON AND CO.'S PATENT LUBRICATING FLUID (or Animal Oil) FOR ALL DESCRIPTIONS OF MACHINERY.

W. B. & CO. have the pleasure to state, that the above article is extensively used in her Majesty's Steam Navy, and by several of the principal Steam Navigation and Railway Companies, and is pronounced by them, and by the first practical engineers of the day, to be far better adapted for the purposes of lubrication than any other article hitherto used for such purposes. The Patent Lubricating Fluid is equally applicable for the most intricate and fine pieces of machinery, as for the heaviest bearings of the steam-engine. It is cheaper, much more economical, and cleaner than oil at present in use; is free from smell, and calculated to effect a vast saving in the expenditure of working steam powers.

Further particulars can be had, and testimonials seen, by application to the manufacturers.

W. BROTHERTON &amp; CO., Hungerford Wharf, Strand, London.

N.B.—The above article will burn in lamps, and give a light equal to the best sperm oil.

## PATENT GUTTA PERCHA DRIVING BANDS.—The GUTTA PERCHA COMPANY beg to acknowledge the extensive patronage they have already received for their PATENT BANDS, and inform their numerous friends, that having completed the erection of their new machinery, they are now prepared to execute orders without delay. THE PATENT GUTTA PERCHA BANDS are now well known to possess superior advantages—viz., great durability and strength, permanent contractility, and uniformity of substance and thickness, by which all the irregularity of motion occasioned by piecing in leather straps is avoided.

They are not affected by fixed oils, greases, acids, alkalies, or water. The mode of joining them is extremely simple and firm. They grip their work in a remarkable manner, and can be had of any width, length, or thickness, without piecing. All orders forwarded to the company's works, Wharf-road, City-road, will receive immediate attention.—London, May 17.

W. GRANVILLE, Manager.

## TO ENGINEERS, BOILER-MAKERS, AND OTHERS.—LAP-WELDED IRON TUBES, FOR STEAM-BOILERS.

W. H. RICHARDSON, JUN., &amp; CO., DARLASTON, STAFFORDSHIRE.

MANUFACTURE all DESCRIPTIONS of WELDED WROUGHT-IRON TUBES, for STEAM, GAS, &c., of any required length and diameter, on the new and unequalled principle of Mr. J. Rose's recent invention (patented August, 1846).—Address as above.

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Planing, Boring, Turning, Screw-cutting, &c.

## G. A. S.—The NATIONAL ECONOMIC GAS BURNER is universally admitted to be the GREATEST IMPROVEMENT of the day. For Brilliance, Purity, and Economy of Light, it stands unrivaled.—See following extracts from testimonial.

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ISHAM BAGGS, Esq.—"For brilliancy and purity of flame, I have never seen it surpassed."

SEPTIMUS FISHER, Esq., Analytical Chemist.—"Tested against the 15-hole Argand, it proves a saving of 20 per cent., and against the 12-hole of 40 per cent."

Mining Journal.—"A most brilliant light, perfectly white to the lowest point of ignition—a sure test of perfect combustion."

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Mechanics Magazine.—"The superior brilliancy of effect, intensity, and power of this burner, we can unreservedly vouch for."

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May be seen burning, and can be tested by an experimental meter, at the office of F. & CO., gas engineers, 12, Leather-lane, Holborn.—A detailed description and diagram, with testimonials at length, forwarded, post-free, on application.

## PATENT IMPROVEMENTS IN CHRONOMETERS, WATCHES, AND CLOCKS.—E. J. DENT, 93, Strand, and 33, Cockspur-street, watch and clock maker, by APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public, that the manufacture of his chronometers, watches, and clocks, is secured by three separate patents, respectively granted in 1836, 1840, 1842. Silver lever watches, jewelled in four holes, 6 gs. each; in gold cases, from £8 to £10 extra. Gold horizontal watches, with gold dials, from 8 gs. to 12 gs. each.

DENT'S PATENT DIPLIDESCOPE, or meridian instrument, is now ready for delivery. Pamphlets containing a description and directions for its use £1. each, but to customers gratis.

## NATIONAL LOAN FUND LIFE ASSURANCE SOCIETY, 26, CORNHILL, LONDON.

Capital £500,000.—Empowered by Act of Parliament.

This institution embraces important and substantial advantages with respect to Life Assurances and Deferred Annuities. The assured has, on all occasions, the power to borrow, without expense or forfeiture of the policy, two-thirds of the premiums paid (see table); also the option of selecting benefits, and the conversion of his interests to meet other conveniences or necessity.

Assurances for terms of years are granted on the lowest possible rates.

## DIVISION OF PROFITS.

The remarkable success and increasing prosperity of the society has enabled the directors, at the last annual investigation, to declare a fourth bonus, varying from 35 to 36 per cent. on the premiums paid on each policy effected on the profit scale.

## EXAMPLES.

Sum.	From.	Year.	Bonus added.	Bonus in Case.	Permanent reduction of Premium.	Assured may Borrow.
£1000	23/7 15	1	£100	0 11	£16 0 4	£445 0 0
1000	192 3 0	87	1 4	13 10 2	205 11 1	
1000	163 11 10	74	1 9	11 3 1	246 2 3	
1000	116 7 6	84	0 10	7 19 10	296 13 4	
1000	111 6 8	49 10 0		7 19 4	247 4 5	

The division of profits is annual, and the next will be made in December of the present year.

V. FERGUSON CAMROUX, Secretary.

## BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.—The next MEETING will be HELD at OXFORD, and will commence on WEDNESDAY, the 23d of JUNE, 1847.

JOHN TAYLOR, F.R.S., General Treasurer,  
2, Duke-street, Adelphi, London.

## A LETTER TO THE EARL OF CLARENCE, President of the Board of Trade, on the subject of the COPPER ORE DUTIES, being a REPLY to the LETTER of Sir CHARLES LEMON, Bart.

London: J. Ridgway—Liverpool: W. Grapell.

Just published, price 1s.

## COMBUSTION OF COAL, CHEMICALLY &amp; PRACTICALLY CONSIDERED. With coloured plates.

By CHARLES WYKE WILLIAMS, Esq.

London: Simpkin, Marshall, & Co., and J. Weale—Birmingham: Wrightson & Webb.

Just published, Part I.,

## CALEDONIAN RAILWAY—LOANS ON DEBENTURES.

The CALEDONIAN RAILWAY COMPANY are prepared to RECEIVE TENDERS of LOANS on DEBENTURES, in sums of not less than £500, for three or five years, bearing interest at the rate of 5 per cent. per annum, payable half-yearly, in Edinburgh, Glasgow, London, Liverpool, Manchester, or Bristol.

Tenders to be addressed to this office.—Parties may also communicate personally with Messrs. Foster and Braithwaite, 68, Old Broad-street, London.

By order of the directors, D. RANKINE, Treasurer.

Caledonian Railway Office, 122, Princes-street, Edinburgh, March 26, 1847.

## CALEDONIAN RAILWAY (CLYDESDALE JUNCTION).

GUARANTEED SHARES.

Notice is hereby given, that the directors of the CALEDONIAN RAILWAY COMPANY have made a CALL on the above shares for a SEVENTH INSTALMENT of FIVE POUNDS per share, PAYABLE on or before the 26th of June next, at any of the under-mentioned banks:—after which day the bankers will charge interest, at the rate of 5 per cent. per annum:

LONDON—Messrs. Mastersman, 35, Nicholas-lane, Lombard-street.

LIVERPOOL—Messrs. Moss and Co.

MANCHESTER—Sir Benjamin Heywood, Bart., and Co.

BRISTOL—The National Provincial Bank of England.

NEWCASTLE-ON-TYNE—The Newcastle Commercial Banking Company.

EDINBURGH and GLASGOW—The Commercial Bank of Scotland.

By order of the board, D. RANKINE, Treasurer.

122, Princes-street, Edinburgh, May 27, 1847.

12th and 10th Vic., cap. 379, sec. 15.—"And be it enacted, that, until the said guaranteed dividends of £50 per centum per annum shall accrue as aforesaid, the said Caledonian Railway Company shall pay to the holders of the said guaranteed stock, interest at the rate of £4 per centum per annum, upon the sum already paid up in respect of their shares, from the date of the passing of this Act, and upon the sum thereafter to be paid up in respect of each share, from the dates of such payments, which interest shall be paid half-yearly, on the 15th day of August and 15th day of February in each year."

N.B.—Payments cannot be received at this office, nor otherwise than at one of the above banks.

Shares cannot legally be transferred till all calls made upon them have been paid.

DUFFRYN LLYNVI AND PORTHCAWL RAILWAY.

Notice is hereby given, that the ANNUAL GENERAL MEETING of the proprietors of this company will be HELD at the Wyndham Arms Inn, Bridgend, on Monday, the 7th day of June next, at One o'clock P.M.

By order of the committee, W. S. BRADLEY, Clerk.

BIRMINGHAM and OXFORD JUNCTION RAILWAY.

—TO THE DIRECTORS OF THE BIRMINGHAM AND OXFORD JUNCTION RAILWAY COMPANY.

Whereas, at an adjourned ordinary meeting of the Birmingham and Oxford Junction Railway Company, held on the 15th day of March, 1847, it was resolved that one-third of the directors who were in office previously to the 27th day of February, 1847, should then retire from office, pursuant to the provisions of the Companies' Clause Consolidation Act, 1845, and the Birmingham and Oxford Junction Railway Act; and that such last-mentioned directors should agree or determine amongst themselves which of them should retire; and, whereas, at an adjourned extraordinary meeting of the said company held on the 1st day of April, 1847, it was resolved as follows:—

"That the proprietors of this company, wholly disapproving of the proposed amalgamation of this undertaking with the Birmingham, Wolverhampton, and Dudley line, and not consenting themselves legally or equitably bound by the proceedings of the meeting of the 4th of December last, held in defiance of the protest of the shareholders disqualified by the acts of the directors, the directors to and they were hereby instructed not to proceed further with, but to withdraw from, the proposed bill now before Parliament for uniting the Birmingham and Oxford Junction Railway Company, and the Birmingham, Wolverhampton, and Dudley Railway Company, into one company, and for authorising the sale of the Birmingham, Wolverhampton, and Dudley Railway Company, and the Great Western Railway Company; and that the directors be further instructed forthwith to affix the company's seal to the petition now ready against such bill, and to cause such petition to be forthwith presented to the House of Commons, and to oppose such bill by counsel and witnesses, and all other necessary means, in both Houses of Parliament; and that this meeting do now instruct the directors not to take, but to oppose any proceedings for or towards amalgamation, sale, or lease, or in the manufacture of the shareholders' or other persons' property, which of them shall retire, and all of them continue to act as directors of the said company, and they have refused to withdraw from the said bill before Parliament, and are proceeding with and promoting the same, and are otherwise proceeding to carry into effect the proposed sale of the said Birmingham and Oxford, and Birmingham, Wolverhampton, and Dudley lines, to the Great Western Railway Company, and an otherwise acting in contravention of the said resolution; and whereas, in the minute book of the directors of the said Birmingham and Oxford Junction Railway Company, under the date of the said 13th day of March, 1847, there is entered a resolution to the port or office following—that is to say:—"

"Resolved.—That Messrs. Muniz, Mathews, Shaw, Spooner, Frear, Simonds, and Barlow, be appointed a committee, of whom three shall be a quorum, for the purpose of entering into such contract or contracts as they may deem necessary for, or in reference to, the making, maintaining, completing, and furnishing the Birmingham and Oxford Railway, and the works and conveniences connected therewith, and for the purpose of enforcing, procuring, and obtaining the performance and execution of any such contract or contracts, already entered into, by or on the part of, the company; and also for the purpose of making and enforcing the payment of calls upon the shareholders in the company, as and when and in such manner as the said committee, or any three of them, may deem proper; and also for the purpose of conducting and managing any bill or bills already or hereafter to be depending before Parliament, in any way relating to the affairs of the said company, or either of such companies, on the other hand; and for the purpose of enforcing and obtaining the performance of such agreements respectively, and any other agreements already made, or hereafter to be made, between the Birmingham and Oxford Railway Company on the one part, and the Great Western Railway Company on the other part, and the Birmingham and Oxford Junction Railway Company as counsel shall advise, for the purpose of obtaining redress or relief in the premises; and also, if so thought fit, of directing that such suit or suits shall be instituted, and of retaining a solicitor for that purpose, and of considering the propriety of, and so determined of directing such other proceedings, whether in Parliament or otherwise, as shall be considered advisable by the said meeting, for the purpose of carrying the said resolutions of the said company or the objects thereof into full effect; and for the purpose of considering the said resolutions so entered in the minute book of the said directors, and any proceeding which may have been had in pursuance thereof, and of dealing therewith as the said meeting shall appear advisable; and for the purpose of giving such directions touching the